Occupational Safety and Health Administration 36 Triangle Park Drive Cincinnati, OH 45246

Phone: 513-841-4132 Fax: 513-841-4114



# Citation and Notification of Penalty

To: Headwaters Plant Services, Inc. and its successors 10701 S. River Front Suite 300 South Jordan, UT 84095

Inspection Site: 11021 Brower Rd North Bend, OH 45052 Inspection Number: 1148200

Inspection Date(s): 05/18/2016 - 09/20/2016

Issuance Date: 09/21/2016

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (arc) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty you either call to schedule an informal conference (see paragraph below) or you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

**Posting** - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

**Informal Conference** - An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period. During such an informal conference you may present any evidence or views which you believe would support an adjustment

to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest — You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penaltics and/or abatement dates without contesting the underlying violations. <u>Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.</u>

Penalty Payment = Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to "DOL-OSHA". Please indicate the Inspection Number on the remittance. You can also make your payment electronically on <a href="https://www.pay.gov">www.pay.gov</a>. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on <a href="https://oSHAPenaltyPaymentForm">OSHAPenaltyPaymentForm</a>. The direct link is:

https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334.

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

**Notification of Corrective Action** – For each violation which you do not contest, you must provide *abatement certification* to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that *abatement documentation* is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

**Employer Rights and Responsibilities** – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees - The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

**Inspection Activity Data** – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.

### U.S. Department of Labor Occupational Safety and Health Administration



# NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSH	A to discuss the citation(s) issued on	
09/21/2016. The conference will be held by telephone	or at the OSHA office located at 36	
Triangle Park Drive. Cincinnati. OH 45246 on	atat	
Employees and/or representatives of employees have	a right to attend an informal conferen-	ce.

#### CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1148200

Company Name: Headwaters Plant Services, Inc.

Inspection Site: 11021 Brower Rd, North Bend. OH 45052

Issuance Date: 09/21/2016

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: U.S. Department of Labor - Occupational Safety and Health Administration, 36 Triangle Park Drive, Cincinnati, OH 45246 Citation Number and Item Number was corrected on By (Method of Abatement): Citation Number and Item Number was corrected on By (Method of Abatement): Citation Number and Item Number was corrected on By (Method of Abatement): Citation Number and Item Number was corrected on By (Method of Abatement): Citation Number and Item Number was corrected on By (Method of Abatement): Citation Number and Item Number was corrected on By (Method of Abatement): I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

Date

Title

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review

Signature

Typed or Printed Name

Occupational Safety and Health Administration Inspection Date(s): 05/18/2016 - 09/20/2016

Inspection Number: 1148200

Issuance Date: 09/21/2016



### Citation and Notification of Penalty

Company Name: Headwaters Plant Services, Inc.

Inspection Site: 11021 Brower Rd, North Bend, OH 45052

Citation 1 Item 1 Type of Violation: Serious

OSH ACT of 1970 Section (5)(a)(1): Section 5(a)(1) of the Occupational Safety and Health Act of 1970: the employer did not furnish employment and a place of employment which was free from recognized hazards that were causing or likely to cause death or serious physical harm to employees to struck by and crushing hazards created by mobile equipment towing operation:

On May 17, 2016 at the Miami Fort Lawrenceburg Landfill, employees were attempting to tow a disabled Komatsu PC350-8 Hydraulic Excavator with the assistance of a Komatsu D65EX-15 Dozer. A series of three nylon slings and four shackles were used to attach the tow bar of the dozer to the bucket of the excavator. While attempting to tow the excavator a nylon sling failed, causing the remainder of the rigging to protrude through the back window of the dozer and strike the dozer operator.

In accordance with 29 CFR 1903.19(d), abatement certification is required for this violation (using the CERTIFICATION OF CORRECTIVE ACTION WORKSHEET), and in addition, documentation demonstrating that abatement is complete must be included with your certification. This documentation may include, but is not limited to, evidence of the purchase or repair of the equipment. photographic or video evidence, or written records.

Among other methods one feasible and acceptable method to correct this hazard would be to:

Follow the manufacture Komatsu Bull Dozer Model D65EX-15 Operators and Maintenance Manual. specifically found on page 3-127 Machine Towing Method:

- 1) Be sure to use wire rope sufficiently strong for the towing weight.
- 2) When using the towing hook, be sure to use a shackle.
- 3) Set the wire rope level and align it with the track frame.
- 4) Tow the machine slowly.
- 5) Always carry out towing operations within the maximum towing capacity.

Follow the manufacture Komatsu PC350-8 Hydraulic Excavator Operators and Maintenance Manual. specifically found on page 2-34 & 3-203 Safety Rules For Towing & Towing the Machine:

See pages 1 through 4 of this Citation and Notification of Penalty for information on employee rights and responsibilities

Occupational Safety and Health Administration Inspection Date(s): 05/18/2016 - 09/20/2016

Inspection Number: 1148200

Issuance Date: 09/21/2016



### Citation and Notification of Penalty

Company Name: Headwaters Plant Services, Inc.

Inspection Site: 11021 Brower Rd, North Bend, OH 45052

- 1) Always check that wire rope used for towing has ample strength for the weight of the machine being
- 2) Never tow a machine on a slope.
- 3) Never use wire rope which has cut strands.
- 4) During towing operation, never stand between the towing machine and the machine being towed.
- 5) Operate the machine slowly and be careful not to apply sudden load to the wire rope.
- 6) Always carry out towing operations within the maximum towing capacity.
- 7) If the machine sinks in mud and cannot get out under its own power, or if the drawbar pull of the excavator is being used to tow a heavy object, use a wire rope as shown in the diagram on the right page of 3-203.
- 8) Place pieces of wood between wire ropes and body to prevent damage to ropes and body.
- 9) Hold the wire rope level and direct it straight to the track frame.

### ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

Proposed Penalty:

10/11/2016 \$12471.00

Ken E. Montgomery Area Director

Occupational Safety and Health Administration 36 Triangle Park Drive Cincinnati, OH 45246

Phone: 513-841-4132 Fax: 513-841-4114



# INVOICE / DEBT COLLECTION NOTICE

Company Name:

Headwaters Plant Services, Inc.

Inspection Site:

11021 Brower Rd, North Bend, OH 45052

Issuance Date:

09/21/2016

Summary of Penalties for Inspection Number

1148200

Citation 1, Serious

\$12471.00

TOTAL PROPOSED PENALTIES

\$12471.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically on <a href="www.pay.gov">www.pay.gov</a>. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on <a href="OSHA Penalty Payment Form">OSHA Penalty Payment Form</a>. The direct link is <a href="https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334">https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334</a>. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check. money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to 2 times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.

Ken E. Montgomery

Area Director

Date

9/21/2016

# U.S. Department of Labor - Occupational Safety and Health Administration

**Inspection Report** 

CSHO ID Ex. 7C

Tue Sep	20,	2016	12:04:33	PM

RID	CSHO ID	Supervisor ID	Inspection Number	Optional Report Number	Case Closed Date
0522000		B0513	1148200	321	

Establishment Nan	ne	Headwaters	Plant Services, Inc.	Doing Business	As (DI	BA)		
Establishment Owner Name	Private Sector		Type of Business	Corporation	Prima	ry NAICS		562910
Site Address	11021 Browe NORTH BEN 45052		Site Phone		Extn		Site FAX	
Business Address	10701 S. Rive Suite 300 SOUTH JOR 84095		Business Phone	(801)-949-4409			Business FAX	
Mailing Address	10701 S. Rive Suite 300 SOUTH JOR 84095		E-mail				Mobile Phone	
Site Activity	Landfill		NAICS Inspected	562910			Days on Site	1
Federal EIN			DUNs		Temp	orary or Fi	xed Site?	Fixed Site
State Estab Id	Ex. 4		DUNS plus4		CAGI	E Code		
Construction Type							* · · · · · · · · · · · · · · · · · · ·	

Entry	18-MAY-2016	09:30 AM	First Closing Conference	18-MAY-2016	11:45 AM
Opening Conference	18-MAY-2016	10:00 AM	Second Closing Conference	20-SEP-2016	02:30 PM
Walkaround	18-MAY-2016	11:00 AM	Exit	18-MAY-2016	12:00 PM

Inspection Initiating Type	Fatality/Catastrophe		Secondary Type		
Other Initiating Type			Inspection Category	Safety	
Scope of Inspection	Partial			Reason No Inspection	
Sampling Performed?	N	SVEP	N	Expln. for No Insp.	
Federal Strategic Initiatives	COMMERCIAL	CONST	r, struc	K-BY	
National Emphasis					
Local Emphasis		2000		,	
Primary Emphasis					

Employed in Establishment	400	Walkaround?	Y	Advance Notice?	N
Covered By Inspection	3	Interviewed?	Y	Flag for Follow-up	N
Controlled By Employer	400	Union?	N	Reason for Follow-up	
Is this Company a current federal contractor?		N	Attempt m	ade to capture Exec Order Info?	Y

Parent Company Legal Name		Parent Comp Trade Name/DBA		
Parent Company Address	Phone Number		Extn	

TIN / EIN		DUNS	
CAGE Code	\$2.000 (a) 1	DUNS plus4	

		Related Activity	
Activity Number	Activity Type	Satisfied	Establishment Name
1092990	FAT/CAT	Safety	Headwaters Plant Services, Inc.

Related Inspections			
Inspection Number	Establishment Name	Related Inspection Type	
1148227	DYNEGY MIAMI FORT, LLC	MULTI-EMPLOYER	

Additional Codes				
Туре	ID	Value	Description	
N	10	IMMLANG-N	All FAT/CAT investigations & related OSHA-¿s - enter if worker(s) involved natural-born U.S. citizen(s) with English as primary language and not Hispanic and no potential language barrier existed at work site.	

			Employer Represe	entatives Contacted			н
Name	John Mille	er .	Job Title	Safety/HR Manager	Occupation		
Address		300	iver Front Suite DRDAN, UT, 84095	Interviewed?	Y		
Home		Work	801-949-4409	Mobile	Fa	X	
Email		Jmiller@he	eadwaters.com	Participation	Cr Co	alk Around edentials, ( onference, ( onference	
Name	Keith Ca	rr .	Job Title	Ops MGR	Occupation		
Address				Interviewed?	N		
Home	<b>Y</b>	+		Mobile	Fa	x	
Email		Private In	nfo; Ex 7C	Participation		alk Around onference	l, Opening
Name	Alan Falls	S	Job Title	Area Dir	Occupation		
Address				Interviewed?	N		
Home				Mobile	Fa	X	
Email		Private I	nfo: Ex. 7C	Participation		alk Around onference	I, Opening

# **Employees Contacted**

# Employees ID: Ex. 7C

Page 3 Headwaters Plant Services, Inc.

Tue Sep 20, 2016 12:04:33 PM Inspection Nr. 1148200

Name			Job	Title			Occupation	on		
Address					Interviewed	?		Y		
Home		Work			Mobile			Fax		
Email					Participation	n		Credentia	ls	
Name			Job	Title			Occupation	on		
Address					Interviewed	?		Y		
Home		Work			Mobile			Fax		
Email					Participatio	n		Credentia	1s	
				Other Person	ns Contacted					
Name	me Chris Osterbrink				Managing Director Relati		Relations	_		omer
Address		11021 B NORTH		Road D, OH, 45052	Interviewed?			N		
Home		Work		513-312-4500	Mobile			Fax		
Email					Participatio	n		Walk Aro	und	
Name	Michael	Chapman	Role	2	Attorney		Relations Employe		Attor	ney
Address		600 Vine		oH, 45202	Interviewed	?		N		
Home		Work		513-381-9336	Mobile			Fax		
Email					Participatio	n		Citation Mailed		
				Penalty Adjus	stment Factors					
Size Reduction	0%		Good	Faith Reduction	0%		History R	eduction	0%	
Size Justification	Per OSHA FO employer who more than 25 employees w receive a size reduction.	o has l ill not	Good	Faith Justification	Per OSHA no Good Fa Reduction i for H.G.S. violations, Violations, Repeat viol	ith s given Willful or	History Ju	stification	Per A	D Discretion.

	CSHO ID Ex. 7C	
CSHO Signature	Date	9-20-16

# U.S. Department of Labor - Occupational Safety and Health Administration

**Investigation Summary** 

Reporting ID	Investigation Summary Number	UPA Number	Event Date	Event Time	Construction
0522000	85361	1092990	05/17/2016	07:45 PM	Y

Establishment Name	Headwaters Plant Services, Inc.	Doing Business As (DBA)	
Related Inspections	1148227(DYNEGY MIAMI FO	RT, LLC)	

# Site Information

Street Address 1:	11021 Brower Rd			5		
Street Address 2:						
County:	HAMILTON					
City	NORTH BEND	State	ОН	Zip	45052	

## Event

Type of Event	Struck by dislodged/flying object				
		Number of Employees			
Fatalities	Hospitalized	Non-Hospitalized	Unaccounted		
1	0	1	0		

# Abstract

What was employee doing just before incident occurred?	Operating a KOMATSO Dozer Model D65EX-15EO
What happened?	On May 17, 2016, two employees of Headwaters Plant Services were attempting to remove a KOMATSO PC 350 Hydraulic Excavator that was submerged deep inside the muddy ground of a landfill. A third employee, the victim, a 38 year old male foreman, was operating a KOMATSO dozer model D65EX-15EO. In an attempt to free the excavator from the mud, the employees were using three separate 16 X 4 Nylon straps attached to 1 1/2 17T Crosby shackles that was attached to the shackle on the excavator. The other end of the makeshift tow strap was rigged to the excavator's bucket hook using a Copperhead WLL 25T shackle. One of the nylon straps broke free from the shackle attached to the excavator causing a shackle to fly into the back window of the dozer cab striking the victim on his torso and causing fatal injuries.
What was the injury or illness?	Blunt force trauma to his torso.
What was the object or substance that directly harmed the employee?	1 1/2 17T Crosby shackle
Keywords	

Victim 1	
Injured/Deceased Name	Jason Jolly
Gender	MALE
Age	38
Victim Injury	Fatality-OSHA covered

Cause		Struck by
Nature of Injury		Fracture, Asphyxia, Bruise/contusion/abrasion
Next of Kin 1		
Next of Kin Name		
Relationship to Deceased		
Mailing Address		
Mailing City	State	
Land the same of t		

Next of Kin ID; Ex. 7C

# **Construction Related Details**

### **Basic Information**

Construction?	Y	Employers Contract Amount:	
Employer Contractual Arrangement:	Subcontractor	Total Time of Construction(in days):	
Number of Contractors:		Number of Contractors / Subcontractors on-site for the project duration:	

Project Management Organization

Project Management Classification	Project Management Organization Name		
Street Address 1:	Street Address 2:		
City	State	Zip	

### **Construction Information**

Number of Stories (if building site):	Type of Construction:	Maintenance or repair
Height in Feet (if not building site):	Description of other construction type:	
Primary Project funding Source:	End Use Type of Construction:	Excavation landfill
Project Cost:		

## **Incident Information**

Construction Operation Being Performed By Victim At The Time Of Event:	Site clearing and grubbing	Distance of the Fall (in feet):
Operation Other Than That Performed By Victim:		Worker height above ground/floor) before fall (in feet):
Cause of Accident:	Struck by falling object/projectile	Description of Other Cause of Accident

# U.S. Department of Labor Occupational Safety and Health Administration

# Fatality/Catastrophe Report Thu May 19, 2016 10:40:25 AM

RID	Office Name	Activity Number	Activity Type	Receipt Date	Receipt Time	Receipt Type	Received By
0522000	Cincinnati Area Office	1092990	FAT/CAT	17-MAY-2016	11:29 PM	Hotline	X6061

· ...

Establishment Nan	ne	Headwaters Plant Se	ervices, Inc.	Doing Business As (DB	3A)
NAICS Inspected 562910		Primary NAICS		562910	
Site Address 11021 Brower Road NORTH BEND, OH, 45052		Site Phone		Site FAX	
Business Address 10701 S. River Front Suite 300 SOUTH JORDAN, UT, 84095		Business Phone	(801)-949-4409	Business FAX	
Mailing Address 10701 S. River Front Suite 300 SOUTH JORDAN, UT, 84095		Mgmt. Official	John Miller N	Agmt. Official Phn.	
Type of Business			Type of Site Activity		
Number of Employ	yees	3	Ownership	Private Sector	

Event Date	17-MAY-2016	Event Time	07:45 PM	Do Insp?	Y	Reason No Insp	
No. Hospitalized	0	No. Unaccounted	0	No. Fatalities	1	No. Non-Hospitalized	1
Classification	Fatality	Employer Report I	Date 1	-MAY-2016		Employer Report Time	11:59 PM

Source Type	Source Name	Phone
Employer/Employer Representative	John Miller	(801)-949-4409

Incident Type	Struck-by
Preliminary Description (Hazard Description and Location	Two employees were attempting to remove a Komatso PC 350 hydraulic excavator that was submerged inside the muddy ground of a landfill. Employee #1 was operating a Komatso dozer Model D65EX-15EO using three separate nylon straps attached to a 1 1/2 17T Crosby shackle that was attached to the shackle on the excavator. One of the nylon straps broke free from the shackle attached to the excavator causing a shackle to fly into the back window of the dozer cab striking the employee #1 seat.
National Emphasis	
Local Emphasis	
Federal Strategic Initiatives	

Injury Illness

FINAL ·Dis Establishment/DBA Headwaters Plant Activity Number: 1092990 RID: 0522000 Services, Inc. Name: 1 **Establishment Information Establishment Information** Establishment Headwaters Plant Services, Establishment DBA: Name: Inc. Establishment ID: 1028733208 Ownership: Private Sector Primary NAICS: 562910 - Remediation Type of Business: Corporation Services **Business Address** Street Address 1: 10701 S. River Front County: SALT LAKE Street Address 2: Suite 300 Zip Code: 84095 Country: UNITED STATES OF AMERICA E-mail Address: State: UTAH Phone Number: 8019494409 City: SOUTH JORDAN Fax: **Mailing Address** Street Address 1: 10701 S. River Front City: SOUTH JORDAN Street Address 2: Suite 300 County: SALT LAKE Country: UNITED STATES OF AMERICA Zip Code: 84095 State: UTAH Site Address Street Address 1: 11021 Brower Road Phone Number: Street Address 2: Phone Number Extn: City: NORTH BEND Fax: State: OHIO Number of 3 Employees: County: HAMILTON Zip Code: 45052 Management/Business Type

Management Official First John Name:

Type of Business:

Official Phone:

Official Phone Extension:

CSHO ID; Ex. 7C

**Receipt Information Receipt Information** 

Received By:

Receipt 05/17/2016

Date:

Receipt Hotline

Type:

Receipt 11:29 PM Time:

Type:

Primary NAICS: 562910 - Remediation Services

Last Name: Miller

Type of Site

Activity:

Formality:

Activity FAT/CAT

Complaint / Referral - Subject / Severity

Discrimination: No

Safety

Imminent No Danger:

Serious: No

Other: No

Health

Imminent No Danger:

Serious: No

Other: No

Hazard Description And Two employees were attempting to remove a Komatso PC 350 hydraulic Location: excavator that was submerged inside the muddy ground of a landfill. Employee #1 was operating a Komatso dozer Model D65EX-15EO using three separate nylon straps attached to a 1 1/2 17T Crosby shackle that was attached to the shackle on the excavator. One of the nylon straps broke free from the shackle attached to the excavator causing a shackle to fly into the back window of the dozer cab striking the employee #1 seat.

No. of Alleged Hazards:

No. Employees Exposed (Removed from Alleged Hazard):

#### Source Information

Source: 1

Source Type: Employer/Employer Representative

Phone Number: 8019494409

Prefix:

Phone Number Extn:

First Name: John

Fax Number:

Last Name: Miller

Reveal Source Name: No

Suffix:

Organization Name:

Job Title: EHS Manager

Organization Title:

E-mail Address:

Bought To Attention of:

Name Of The Govt

CSHO ID:

Agency:

CSHO First Name:

Street Address 1:

CSHO Last Name:

Street Address 2:

CSHO Job Title:

City:

Date Separated:

State:

Relationship:

Country: UNITED STATES OF AMERICA

Other:

Zip Code:

#### Assign/Transfer Information

**Assignment** 

Assigned CSHO's Login Name

Assigned Supervisor's Login Name

B0513

### **Additional Fat Cat Information**

Classification

Classification: Fatality

Employer Report Date: 05/17/2016

No. Hospitalized: 0

Employer Report Time: 11:59 PM

No. Unaccounted For: 0

Event Date: 05/17/2016

Event Time: 07:45 PM

No. Fatalities: 1

Incident Type: Struck-by

No. Non-Hospitalized: 1

Do Inspection

Do Inspection?: Yes

Explanation:

Reason for No Inspection:

### Complaint/ Referral Information

Close No

Complaint/Referral?:

**Program Information** 

**National Emphasis Programs** 

**Local Emphasis Programs** 

Federal Strategic Initiative:

Migrant Farm Worker No

Camp:

Additional Codes: Type Id

# 1-800-321-OSHA Hotline Referral Department of Labor National Contact Center (DOL-NCC) OSHA After Business Hours Transcript

Notice: This is a transcript of a call received after business hours via OSHA's 1-800 system. It is taken from a recorded message provided by the caller, and is reproduced for your records and to take action if you deem necessary. Blank entries below indicate the caller did not provide this information via the recording. Unless otherwise indicated below, it is OSHA policy to notify Area Office personnel having jurisdiction as soon as feasible concerning fatality/catastrophe or life-threatening situations. Time is listed in military time and is recorded in the Eastern Time (ET) zone only for consistency & records management purposes.

The caller selected op		atality / Iospitalizatio	on	Actua	l Call Type:	Fatality / Hospitalization
Transcript # 1-126346438		Date/Time Received – Mailbox ET)	05/17/2016 22:49:17		Date/Time Retrieved from Mailbox (ET)	05/17/2016 23:06:35
Establishment Name	Headwaters Plant Services-Dynasty Facility					
Establishment Addre	ess: I	Jnknown No	orth Bend O	H 4505	2	
Establishment Phone	e #:					
WILLIAM BLEVE	Caller	's Contact I	nformation	– Pote	ntial Privacy Da	ta
Caller's Name:	J	ohn Miller	100-000	3.92= 0, 1		
Caller's Phone #:	(	(801) 949-440	)9			
the Dynasty Facility is employee is based ou (muffled) work as a construction of the state of th	in North in the (muffle contractor or any que e deceased excavator	Bend OH. I d) facility in r on the Dyn estions please l name was J . The sling p	Phone numb Maysville, K asty facility. e give me a c ason Jolly an popped off s	er is 45; Y 4105 My nar call at the id he wattriking	I'm sorry. The zi 6. They travel the me is John Miller at number. Than as 32 years old. I the employee. The	,
Workplace or Caller's Zip Code:	45052		OSHA Re	porting	ID: 522000	
Date/Time referred to OSHA:	05/17/2 23:22:17		Immediate	referra	l: OSHA Office:	Cincinnati Area Office - OSHA
Referred to CSHO:	erred to CSHO: Ken Montgomery		Yes		OSHA Phone #:	(513) 841-4132
Transcriber Name:			Special Co OSHA			A1-0-1
Action: Will forwar	d to the (	OSHA local	office.			

For assistance with problems or for help in sending the transcript to another office or jurisdiction, please contact the DOL-NCC by calling the OSHA toll-free telephone number at 1-800-321-6742. You can also email the Content Research Analyst – on Call (CRA-C) during normal business hours at CC-DOL-CRA acse.com. When contacting the DOL-NCC about a particular transcript, please provide a detailed description about your inquiry so that we may provide you with an informed response. Please indicate this is an OSHA escalation. Please refer all other inquiries to your OSHA Regional Coordinator.

Back

Pont

· Injury: Illness Log successfully saved

### Injury & Illness Log: Headwaters Plant Services, Inc.

Injury & Illness Log Establishment

Type:

Name of

Temporary Work Site:

Data Not Applicable?:

Data Not

Available?: Comments:

Location

Street1:

10701 S. River Front

No

No

City: Zip:

SOUTH JORDAN

84095

3

184

**Number of Cases** 

Deaths (G): 0

Cases with job transfer or restriction (I):

Total Recordable

Cases:

**Number of Days** 

Number of Days Away From Work

(K):

Injury & Illness Types

Injuries (M): 3 Respiratory 0

Condition (M):

Hearing Loss 0

Total Hours 64352

Partial Year?: No

Year:

2013

Start Date:

End Date:

Street2: State:

Suite 300

2

0

UTAH

Cases with days away from work (H):

Other recordable cases (J):

Total DART

Cases:

Number of 13 Days of Job

Transfer/Restriction

(L):

Skin

0

0

31

Disorders (M):

Poisoning 0 (M):

All Other

illnesses (M):

**Employment Info** 

Worked:

Number of Employees: Back Pnit

· Injury Illness Log successfully saved

#### Injury & Illness Log: Headwaters Plant Services, Inc.

Injury & Illness Log Establishment

Partial Year?: No

Type:

Name of Temporary

Year:

2014

Work Site:

Data Not No Applicable?:

Start Date:

Data Not Available?:

No

End Date:

Comments: Location

Street1:

10701 S. River Front

Street2:

Suite 300

City:

SOUTH JORDAN

State:

UTAH

0

0

Zip: 84095

**Number of Cases** 

Deaths (G): 0 Cases with 0

days away from work

(H):

Cases with 0 job transfer

or restriction (I):

Other recordable cases (J):

Total Recordable Cases:

Total DART

Cases:

**Number of Days** 

0

Number of

0 Days Away From Work

(K):

Number of Days of Job Transfer/Restriction

(L):

**Injury & Illness Types** 

Injuries (M): 0

Skin

Disorders

0

0

0

40

(M):

Respiratory 0 Condition

Poisoning

(M):

Hearing Loss 0

All Other illnesses (M):

(M):

**Employment Info** 

Total Hours Worked:

77158

Number of

Employees:

3 Dack Pant

· Injury Illness Log successfully saved

#### Injury & Illness Log: Headwaters Plant Services, Inc.

Injury & Illness Log Establishment

Type:

Partial Year?: No

Name of

Temporary Work Site:

Year:

2015

Data Not

No Applicable?:

Start Date:

Data Not Available?: No

End Date:

Comments: Location

Street1:

10701 S. River Front

Street2:

Suite 300

City:

SOUTH JORDAN

State:

UTAH

0

31

84095 Zip:

**Number of Cases** 

Deaths (G): 0

0 Cases with

days away from work (H):

Cases with 2 job transfer or restriction (I):

Other recordable

Total

cases (J):

Recordable Cases:

Total DART

Cases:

**Number of Days** 

2

Number of 0 Days Away

Number of Days of Job

From Work

Transfer/Restriction

(K):

Injury & Illness Types

Injuries (M): 2

Skin

0

0

0

34

Disorders (M):

Respiratory

Poisoning

Condition (M):

(M):

All Other illnesses (M):

Hearing Loss 0

Total Hours

Worked:

**Employment Info** 

70069

Number of

Employees:



## SUPERVISOR'S REPORT OF INCIDENT

⊠ INITIAL ☐ F	1	acility name, addre purlock Power Sta	ss, рноме ation Maysville, Kent	tucky, 41056	(606)883-3022
INCIDENT DATE: DATE REI 05/17/2016 05/17/2	1.20	PECIFIC LOCATION OF	INCIDENT: d, North Bend, Ohio	South east of	corner of the landfill
INCIDENT REPORTED TO:  Jamie Higgins			TITLE: Site Manager	oddii dddi c	orner or the landing
TYPE OF INCIDENT (Check all th	at apply)				
DRUG/ALCOHOL TEST		HW INTERNAL PRO	PERTY DAMAGE	□ OTHER	
☐ YES ☒ NO		N/A	i e		
	Α.	EMPLOYEE IN	IFORMATION		
EMPLOYEE NAME & SSN:		DEPT:		JOB TITLE:	
Jolly, Jason NOK	(#7c	HIRE DATE:	DATE OF BIRT	Operator H: AGE	: -
NOK Privacy #7c		05/26/2013	NOK #7c	#70	⊠ MALE
NORTHVACY #76					☐ FEMALE
	B. I	NCIDENT INFO	ORMATION		
MEDICAL ATTENTION:			HE WORKSITE, WHERE WA	AS IT GIVEN?	
☐ NONE ☐ FIRST AID ONSITE	FACILITY: Unknow	wn at this time			
DR's OFFICE	ADDRESS		44,0		
☐ EMERGENCY ROOM ☐ HOSPITALIZED	CITY:		STATE:	ZIP:	
(In-patient)  EMS RESPONCE	NAME OF PHYSICIA	N OR OTHER HEALTH O	ARE PROFESSIONAL:		
CASE NUMBER FROM OSHA LOG: (If applicable)	TIME EMPLOYEE BE	EGAN WORK:	TIME OF INCIDENT:		IF APPLICABLE, DATE OF DEATH:
(	5:00	⊠ AM □ PM	7:45	AM 🛭 PM	5/17/2016
what was employee doing just specific. Examples: "climbing a ladder we Employee was operating a E recovery equipment.	hile carrying roofing ma	aterials"; "spraying chloring	e from hand sprayer"; "daily o	computer key-entr	
WHAT HAPPENED? Tell how the incid during replacement; "Worker developed As the excavator operator w	soreness in wrist over	time".			
equipment (either one of the the seat striking the employe	straps or a clevi				
WHAT WAS THE INJURY OR ILLNES: "strained back", "chemical burn, hand"; "Fatality			I how it was affected; be more	re specific than "hu	ut", "pain", or "sore" Examples:
WHAT OBJECT OR SUBSTANCE DIR incident, leave it blank Unknown at this time. Foreig		EMPLOYEE? Examples	"concrete floor", "chlorine";	"radial arm saw".	If this question does not apply to the

# OSHA's Form 300 (Rev. 01/2004)

# Log of Work-Related Injuries and Illnesses

Attention: to employee that protects extent possifor occupati

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

the mos	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on	(E) Where the event occurred (e.g. Loading dock north end)	(D) Date of injury or onset of	(C) Job Title (e.g., Welder)	(B) Employee's Name	(A) C No.
Death	right forearm from acetylene torch)		illness (mo./day)			
(G)						
x	struck in the back by a clevis when a tow strap broke	Miami Fort Power Station South East corner of landfill	05/17	Operator	Jason Jolly	01
$\vdash$						
						]
$\vdash$						
	Page totals					

Be sure to transfer these totals to the Sur

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.



# Summary of Work-Related Injuries and Illnesses

Form approved OMB no. 1218-0176

### U.S. Department of Labor

Occupational Safety and Health Administrator

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0,"

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases			
0	0	2	0			
(G)	(H)	(1)	(J)			
Number of Days						
otal number of days	s away	Total number of days of jol transfer or restriction	5			
0	_	8 31				
(K)		(L)				
njury and Illnes	s Types					
otal number of ()	A)					
Injuries	2	(4) Polsonings	0			
2) Skin disorders 0		(5) Hearing loss	0			
	tions 0	(6) All other Illness	0			

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office

Establ	lishment informatio	on			
Your es	stablishment name	Spurlock			
Street	3526 Tuckahoe Road				
City	Maysville	State	KY	Zip	41056
Industry	description (e.g. M	lanufaclurer of mo	tor truck t	railers)	
Standai	rd Industrial Classificati	ion (SIC), if known	e.g. 371	5)	
North A	merican Industrial Clas	ssification (NAICS	), if knowr	(e.g. 336	212)
	336212	Specialized Materia	al Managi	ng and Op	eration Servic
Emplo	yment information	(If you don't ha	ve these lig	ures, see th	e Worksheet to estimate)
Annual	average number of em	ployees		34	_
Total ho	ours worked by all emp	loyees last year		70069	_
Sign h	nere				
Knowin	gly falsifying this docur	ment may result in	a fine.		
l certify entries	that I have examined tare true, accurate, and	his document and complete.	that to th	e best of n	ny knowledge the
jkenne	DV IN			SAFE	TY COR.
Compan	y representative			Title	
60640	70313			1/28/2	2016
Phone		·~4		Date	×
1	- (1)	- 5		112	5/16

# OSHA's Form 300 (Rev. 01/2004)

# Log of Work-Related Injuries and Illnesses

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment

beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



### U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

injury an	nd illness incident report (OSHA Form				to use two lines for a single case if you need to. You must co you're not sure whether a case is recordable, call your local O			Establishm	nent name		ŀ	HPS Sp	urlock	Static	n		
office for	r help.							City	Maysville			State			Kentud	cky	
(A)	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right	CHECK		e box for each o		Enter the nidays the inj	ured or ill	Check th	ne "inju		mn or ch	noose or	2
	Employee ID; Ex. 7C		illness (mo./day)		forearm from acetylene torch)	Death (G)	Days away from work	Remair  Job transfer or restriction  (I)	Other recordable cases	Away From Work (days)	On job transfer or restriction (days)		Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
001			5/18	Spurlock landfill	Sprained shoulder as he was attempting to clomb onto the equipment		(1.1)	X	(5)	(11)	1	(1) X	(2)	(3)	(4)	(5)	(6)
2		r	12/29	Landfill access ramp	Injured lower back after hitting a hole in the access ramp			Х			30	X					
1.																	

Page totals

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

ige 1 of 1

) (2)

(4

(5)

# OSHA's Form 300A (Rev. 01/2004) Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

#### **Number of Cases**

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	0	0
(G)	(H)	(1)	(J)

#### **Number of Days**

Total number of days away from work	Total number of days of job transfer or restriction
0	0
(K)	(L)

Ir ''ry and Iliness T	ypes		
Total number of (M)			
(1) Injury	0	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory			
Condition	0	(6) All Other Illnesses	0

# Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics. Room N-3644, 200 Constitution Ave., NW, Washington, DC 20210. Do not send the completed forms to this office.



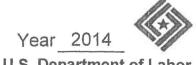
#### U.S. Department of Labo Occupational Safety and Health Administration

Form approved OMB no. 1218-017

Esta	olishment Information
	Your establishment name Headwaters Plant Services Spurlock Station
	Street 3526 Tuckahoe Road
	city Maysville State Kentucky Zip 41056
	ndustry description (e.g., Manufacture of motor truck trailers)  Specialized Material Management and Operation Service
0.0	Standard Industrial Classification (SIC), if known (e.g., SIC 3715) 89111
OR	North American Industrial Classification (NAICS), if known (e.g., 336212)
Emi	loyment information
	Annual average number of employees 40
	Total hours worked by all employees last year 77,158
Sig	here
	Knowingly falsifying this document may result in a fine.
	I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.
	51TE MANAGER Title 1-937-825-0497 1/31/15
	1-937-825-0497 Phone //31/15

# SHA's Form 300 (Rev. 01/2004) og of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



### U.S. Department of Labor

Occupational Safety and Health Administration

first aid. You must also record sig	nificant work-related in	uries and illnes	sses that are diagnosed by a physician or I	icensed health care professional. You must also record work use two lines for a single case if you need to. You must com	-related								proved O		1218-01	76
				u're not sure whether a case is recordable, call your local OSH			Establishm	ent name		Hea	adwater	s Plar	it Serv	ces		
							City	Maysville			State			Kentuc	:ky	
Identify the person			Describe the	case	Class	ify the case	е									
(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right				Enter the no days the inj worker was	Check the "injury" column or choose one type of illness:							
		illness (mo./day)		forearm from acetylene torch)	Death	Days away from work	Job transfer	ed at work  Other recordable cases	Away From Work (days)	On job transfer or restriction (days)	Injury	Skin Disorder	Respiratory	Poisoning	Hearing Loss	All other illnesse
					(G)	(H)	(i)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)
					-											
					-											
					-											
				Page totals	0	0	0	0	0	0	0	0	0	0	0	0
ne instruction, search and gather	the data needed, and c	omplete and re	e 14 minutes per response, including time to eview the collection of information. Person	S	to the	Summary	page (Form	300A) before	e you post	it.	Injury	in Disorder	Respiratory Condition	Poisoning	earing Loss	er illnesses
y comments about these estimate	es or any aspects of this	data collection	currently valid OMB control number. If you n, contact: US Department of Labor, OSH/ 20210. Do not send the completed forms to	A								क			Ĭ	All oth
e								Page	1 of 1		(1)	(2)	(3)	(4)	(5)	(E)

# OSHA's Form 300A (Rev. 01/2004)

# Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

#### Number of Cases

To mber of deaths  0 (G)	Total number of cases with days away from work 2 (H)	Total number of cases with job transfer or restriction	Total number of other recordable cases  0 (J)
Number of Days			
Total number of days away from work		Total number of days of job transfer or restriction	
184 (K)	-	13 (L)	
Injury and Illness T	ypes		
Tacumber of (M) (1) Injury	3	_ (4) Poisoning	0
<ul><li>(2) Skin Disorder</li><li>(3) Respiratory</li><li>Condition</li></ul>	0	(5) Hearing Loss (6) All Other Illnesses	0

# Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics. Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.



# U.S. Department of Labor Occupational Safety and Health Administration

Form approved OMB no. 1218-0176-

- 63	
Esta	ablishment information
	Your establishment name Headwaters Plant Services Spurlock Station
	Street 3526 Tuckahoe Road
	City Maysville State Kentucky Zip 41056
	Industry description (e.g., Manufacture of motor truck trailers)  Specialized Material Management and Operation Service
	Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
OR	8 9 1 1 North American Industrial Classification (NAICS), if known (e.g., 336212)
Em	ployment information
	Annual average number of employees 31
	Total hours worked by all employees last year 64,352
Sig	in here
	Knowingly falsifying this document may result in a fine.
	I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.
	2 C/L/2 Company executive SITE MAINTHGE TITLE  1-937-825-0492  7/2/14
	1-937-825-0497 Phone 7/2/14

# OSHA's Form 300 (Rev. 01/2004)

# Log of Work-Related Injuries and Illnesses

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

beyon	d first aid. You must also record signifi	related						101	iii appi	10469 014	VID NO.	210-017	O				
	injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must con injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OS										Headwaters Plant Services						
for help								City	Maysville			State		K	Centuc	ky	
	Identify the person			Describe the o	case	Class	ify the case			,							
(A)	(B) Employee's Name	(C) Job Title (e.g.,		(E) Where the event occurred (e.g.	Describe injury or illness, parts of body affected,	the mos	CONLY ONE I		case based on case:	Enter the nu days the inju- worker was:	ured or ill	Check the	e "injur	y" columi iline:		ose one	type of
No.	Employees ID; Ex. 7C	Welder)	injury or onset of illness (mo./day)	Loading dock north end)	and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	Death	Days away	Rema	ined at work	Away From	On job transfer or	(M)	rder	ک	_	SSO	illnesses
										14/1	restriction		.80	atc	ing	9 [	ē

Job transfer Work Other record-(days) or restriction (days) able cases (2) (3) (G) (H) (1) (K) 01/30 Lower back sprain raising dump truck hood North side of maintenance shop 4 11/07 East side landfill haaul road Herniated disc hitting pot hole in haul road 180 12/18 Bottom of the driver seat broke causing seat Traveling on the haul road to move and injuring lower back 13 Page totals 0 2 3

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Respiratory Condition Skin Disorder Hearing Loss

1 of 1

	SAFET	NARRATIVE
Inspection Number	1148200	<u>}</u>
COVERAGE INFORMATION	-Copied from Co	mpany Web page
Headwaters Plant Services is there strategies for handling site services		way to help our clients find and implement the optimal
years' experience at over 100 utilit	y sites handling a t a local contracto	es for Coal Combustion Residuals (CCRs). We have over 30 ll types of CCRs, plus other service projects such as coal r that sidelines in CCR handling or disposal. We provide
<ul> <li>speak for themselves:</li> <li>On-going projects at 25 utility</li> <li>Under contract to dispose of m</li> <li>Operate and maintain Flue Gas</li> </ul>	and industrial loca ore than 15 millio Desulphurization	n tons of CCR annually
the historical perspective, national	scale, operating e	t when planning for the future. No other company possesses xperience and political and regulatory expertise that reside ist you in when it comes to planning your byproduct
Headwaters Plant Services is close Visit them at www.flyash.com.	ely affiliated with	America's largest coal ash marketer, Headwaters Resources.
<b>Interstate Commerce:</b> The emplomanufactures in Tulsa, OK.	oyer used and perf	formed work using Crosby shackles that are
approximately 400 overall employ	vees with approxing purlock facility loo	a VI, Headwaters Plant Services, Inc. employs nately 34 employees employed working for cated in Marysville, KY that were involved in the EHA 300 logs.
<b>History-</b> An OSHA inspection Co was opened on 9/12/12 and closed		448 was performed by Kentucky State OSHA that no citations issued.
PPE Required		/Shoes ⊠ Safety Glasses □ Safety Goggles □ Hearing Protection ⊠ Other: Gloves
NATURE AND SCOPE On May 17, 2016, CSHO was ass Miami Fort, LLC facility located 1		to investigate a Fatality that took place at the Dynegy
Check Applicable Boxes a Complaint Item Referral Items	_	gs:

Accident Investigation Summary & Findings
LEP –Primary Emphasis
Planned Inspection
Follow-up Inspection
NATURE AND SCOPE – UNUSUAL CIRCUMSTANCES (Mark X and explain all the apply:)
None
Denial of entry (see denial memo)
Delays in conducting the inspection
Strikes
Jurisdictional Issues
Trade Secrets
Other

## OPENING CONFERENCE NOTES-

On May 18, 2016, CSHO arrived at the facility at approximately 9:30 a.m. Upon arrival, CSHO signed in at the guard gate and met with Mr. J Chris Osterbrink the Managing Director for the Dynegy Miami Fort Power Station. Mr. Osterbrink led the CSHO to a room where the opening conference was going to be held. It was found during this time that there were no employees on-site from Headwaters Plant Services, Inc. (HPS) who was on-site during the fatality to interview and all work has stopped. Mr. Osterbrink stated an HPS representative was on his way from the airport and was to arrive soon. He also told the CSHO he had his employee who was at the scene of the accident take some time off due to the fatality had shook him up and would be available 5/25/16 to interview. Mr. John Miller VP of support for HPS arrived as the CSHO held his opening conference. After the opening conference, CSHO, Mr. Osterbrink, and Mr. Miller drove to the landfill were the accident took place. At this time, CSHO completed his walk-around inspection and took photos.

**Note:** During the opening conference, the employer stated the worked being performed by his employees on this job-site was considered to be construction and that the training involved would fall under the OSHA construction industry standards.

What Happened- On May 17, 2016 three employees working for Headwaters Plant Services, Inc. (HPS) were engaged in removing fly ash (mud) from a chimney located on a land fill using a Kamat'su PC350 Excavator. During this operation, the excavator was stuck in the mud and was unable to pull out. The Foreman who had been operating the Kamat'su Dozer D65EX-15 directed the use of four (4) separate 4" synthetic slings attaching them together using shackles between each sling as a tow strap to pull the excavator from the mud.

One end of the 4" synthetic sling was rigged by a basket hitch (10' X 4") sling to the Kamat'su Dozer D65EX-15 draw bar pin located on the rear lower center of the dozer. The other end was rigged to the Kamat'su PC350 Excavator bucket hook using a Copperhead shackle WLL 25T and 20' X 4" synthetic sling. Between these slings were a 30'X4", 20'X4" synthetic slings rigged with two (2) Crosby WLL 17T shackles.

The dozer with the rear facing the excavator bucket was to maintain the weight of the excavator while the excavator operator was to use the bucket to pull out. During this towing process attempt, the sling attached to the bucket hook of the excavator broke away from the shackle projecting the sling and shackle into the rear cab of the dozer. The shackle (Crosby WLL 17T) struck the dozers operator seat causing blunt impact injuries/fatality to the dorsal torso of the dozer (Foreman) operators back.

Employee Interview- Please see employee confidential interview sheet.

Yes No NA Training D	Health Program Ocument ntract agreement, OSHA Logs
CLOSING CONFERENCE NOTES: A closing conference was held with the Mr. Miller as the Cexplained and reviewed the employer rights booklet with the explained the expedited settlement agreement and abatement and if they are not eligible for an expedited settlement informal conference with the area director to discuss the ceany other issue they wish to discuss with the area director. Of the informal conference then they have 15 working day discrimination employee rights and knowing providing fallows.	the employer and provided him a copy. CSHO then ent verification standard to the employer. CSHO then ent agreement they had 15 working days to set up an itations, abatement of hazard, propose penalties, and CSHO then explained if nothing is accomplished our is to contest the citation. CSHO then discuss the 11C
Were any unusual circumstances encountered such as, but and/or negative employer attitude? If yes, explain below:	not limited to, abatement problems, expected contest
∑ Yes □ No	
Employer may contest stating the accident may be emplo	yee miss-conduct on the Foreman.
The employer provided an Affidavit of the Area Operation 1, 2016. Paragraph 6 of said Affidavit states, "On Octobe communicated the substance of the Spurlock JHA to the Foperator who would eventually return to the Spurlock facitraining. The JHA provided to the CSHO was created/dattelephone discussion between Area Operations Manager a Furthermore, CSHO was provided a copy of the Training Recovery Operations JHA. HOWEVER; the Foreman's naws not trained. The employer typed in names of those ernot type the Foreman's name, which clearly shows they diclearly, the Foreman was never trained in recovery operations.	r 19, 2015, however, I personally discussed and foreman because I knew that he was an equipment clity." A telephone discussion does not constitute ed January 15, 2016, three (3) months after the alleged and the Foreman, as referred to in the Affidavit. Documentation Form dated February 1, 2016 for ame is not on said training document and therefore, imployees anticipated to attend said training and did id not expect Foreman to attend said training. Again,
Closing Conference Checklist ("x" as appropriate)	
No Violations Observed/Issued	☐ Discussed Consultation Programs
☑ Gave Copy Employer Rights	Employer/Employee Questionnaires
Reviewed Hazards and Standards	☐ Discuss Employer Rights/Obligations
☐ Encouraged Informal Conference	Offered Abatement Assistance

Note: CSHO recommended to Mr. Miller during his intermediate closing conference the 4" synthetic slings being used as a tow strap to tow the excavator from the mud were intended to be used in a vertical position than a horizontal position. Mr. Miller stated HPS has trained employees on the proper towing procedures when recovery of mobile equipment is required and that this training included using towing cables that were rated for the operations.

## U.S. Department of Labor Occupational Safety and Health Administration

### **Violation Worksheet**

Print Date: 09/20/2016

1 1111 Date . 05/20/2	2010				
			Insp	ection Number	1148200
			Opt.	Insp. Number	321
Establishment Name	Headwaters P	lant Services, Inc.			
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	1 /
Number Exposed	3	No. Instances	1	REC	FAT/CAT/Accident
Special Enforcement?			Employer's Relationship to Hazard	All	
Standard	OSH ACT of 1970 Section (5)(a)(1)				
<b>Substance Codes</b>	1		Photo/Video Number		8973,8967,8830,8831 ,8861,8856,8848
Alloged Violation	OSH ACT of 1970 Section (5)(a)(1): Section 5(a)(1) of the Occupational Safety and Health				

Alleged Violation Description OSH ACT of 1970 Section (5)(a)(1): Section 5(a)(1) of the Occupational Safety and Health Act of 1970: the employer did not furnish employment and a place of employment which was free from recognized hazards that were causing or likely to cause death or serious physical harm to employees to struck by and crushing hazards created by mobile equipment towing operation:

On May 17, 2016 at the Miami Fort Lawrenceburg Landfill, employees were attempting to tow a disabled Komatsu PC350-8 Hydraulic Excavator with the assistance of a Komatsu D65EX-15 Dozer. A series of three nylon slings and four shackles were used to attach the tow bar of the dozer to the bucket of the excavator. While attempting to tow the excavator a nylon sling failed, causing the remainder of the rigging to protrude through the back window of the dozer and strike the dozer operator.

In accordance with 29 CFR 1903.19(d), abatement certification is required for this violation (using the CERTIFICATION OF CORRECTIVE ACTION WORKSHEET), and in addition, documentation demonstrating that abatement is complete must be included with your certification. This documentation may include, but is not limited to, evidence of the purchase or repair of the equipment, photographic or video evidence, or written records.

#### Recommended Abatement Action

Among other methods one feasible and acceptable method to correct this hazard would be to:

Follow the manufacture Komatsu Bull Dozer Model D65EX-15 Operators and Maintenance Manual, specifically found on page 3-127 Machine Towing Method;

- 1) Be sure to use wire rope sufficiently strong for the towing weight.
- 2) When using the towing hook, be sure to use a shackle.
- 3) Set the wire rope level and align it with the track frame.
- 4) Tow the machine slowly.
- 5) Always carry out towing operations within the maximum towing capacity.

Follow the manufacture Komatsu PC350-8 Hydraulic Excavator Operators and Maintenance Manual, specifically found on page 2-34 & 3-203 Safety Rules For Towing & Towing the Machine;

- 1) Always check that wire rope used for towing has ample strength for the weight of the machine being towed.
- 2) Never tow a machine on a slope.
- 3) Never use wire rope which has cut strands.

### Establishment Name

Headwaters Plant Services, Inc.

- 4) During towing operation, never stand between the towing machine and the machine being towed.
- 5) Operate the machine slowly and be careful not to apply sudden load to the wire rope.
- 6) Always carry out towing operations within the maximum towing capacity.
- 7) 1) If the machine sinks in mud and cannot get out under its own power, or if the drawbar pull of the excavator is being used to tow a heavy object, use a wire rope as shown in the diagram on the right page of 3-203.
- 8) Place pieces of wood between wire ropes and body to prevent damage to ropes and body.
- 9) Hold the wire rope level and direct it straight to the track frame.

### Penalty

Severity High

Severity Justification An accident could occur while performing towing operations with mobile equipment

**Proposed Penalty** 

that could lead to an injury involving permanent disability or possible death.

12471.00

**Probability** Greater

**Probability Justification** An accident did occur on or about 5/17/16.

12471.00

GravityHighSize0%Gravity based Penalty12471.00Good Faith0%Num Times RepeatedHistory0%Multiplier1Quick Fix0%

Calculated Penalty

Day AD Dissertion No seculty days

Proposed Penalty Justification:

Per AD Discretion-No penalty decrease

### **Abatement Details**

Days to Abate 10 Wkg Days Abatement Status

**User-entered Abatement** 

**Due Date** 

Date Abated

Abatement

Documentation Required?

Yes

**Date Verified** 

**Abatement Completed** 

Description:

#### **MultiStep Abatement**

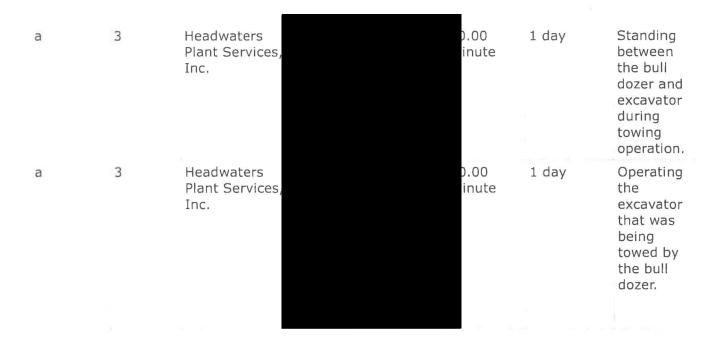
Type/Other Type Days to abate User entered Completed(status) Verify Date

Abatement Due Date

**Employee Exposure** 

**Employer** Name and Address Duration Frequency Proximity **Exposure** No. Telephone **Instance Exposed Numbers** 3 30.00 Headwaters Jason Jolly 1 day Operating a Plant Services, minute a bulldozer Inc. to tow an excavator.

#### Employees ID; Ex. 7c



- 20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements
- a) **Hazards-Operation/Condition-Accident**: Employees are required to operate mobile equipment such as Komatsu PC350-8 Hydraulic Excavator and Komatsu D65EX-15 Dozer during their daily 8 hour work activities. Employee that was involved in the towing operation on 5/17/2016 had not been trained by the employer in the safety hazards associated with towing of mobile equipment and was exposed to struck by and or crushed by hazards that lead to an accident/fatality.

#### b) Equipment:

- 1 each 4 X 10' synthetic sling Manufactured by F&M MAFCO
- 1 each 4 X 30' synthetic sling Manufactured by F&M MAFCO
- 2 each 4 X 20' synthetic sling Manufactured by F&M MAFCO
- 3 each Crosby Shackle WLL 17T 1/12
- 1 each Copperhead Shackle WLL25T CA1 -1/34A

Komatsu PC350-8 Hydraulic Excavator

Komatsu D65EX-15 Bulldozer

- c) **Location**: Facility Address: 11021 Brower Rd., North Bend, OH Accident location located on facility: Miami Fort Lawrenceburg Landfill.
- d) Injury/Illness (and Justifications for Severity and Probability):

**Severity:** An accident could occur while performing towing operations with mobile equipment that could lead to an injury involving permanent disability or possible death.

Probability: An accident did occur on or about 5/17/16.

- e) **Measurements**: CSHO used a 25' expandable engineer rod to measure the length of each 4 synthetic strap used during the towing operation. (See above item (b) for measurement sizes)
- 23. **Employer Knowledge**: The employer had knowledge by providing the CSHO a JHA on Recovery Operations/Pulling Equipment and an affidavit stating the Foreman had been trained on the use of a steel cable with appropriate load rating to tow and recover heavy equipment. On 9/20/2016, the employer provided their "Supervisor Report of Incident" reference to **E.** CAUSES/Indirect Contributing Causes: it states "Employees failed to follow proper procedures and use improper equipment to recover stuck machine".
- 24. **Comments**: The employer provided an Affidavit of the Area Operations Manager for Headwaters Resource, Inc. dated June 1, 2016. Paragraph 6 of said Affidavit states, On October 19, 2015, "however, I personally discussed and communicated the substance of the Spurlock JHA to the Foreman because I knew that he was an equipment operator who would eventually return to the Spurlock facility". A telephone discussion does not constitute training. The JHA provided to the CSHO was created/dated January 15, 2016, three (3) months after the alleged telephone discussion between Area Operations Manager and the Foreman, as referred to in the Affidavit. Furthermore, CSHO was provided a copy of the Training Documentation Form dated February 1, 2016 for Recovery Operations JHA. HOWEVER; the Foreman's name is not on said training document and therefore, was not trained. The employer typed in names of those employees anticipated to attend said training and did not type the Foreman's name, which clearly shows they did not expect Foreman to attend said training. Again, clearly, the Foreman was never trained in recovery operations by employer.

#### 25. Other Employer Information:

**Element#1:** Employer failed to keep the workplace free from recognized hazards to which the employee of the company was exposed.

Employees are required to operate mobile equipment such as Komatsu PC350-8 Hydraulic Excavator and Komatsu D65EX-15 Dozer during their daily 8 hour work activities were exposed to a struck by, crushed by hazards while operating the mobile equipment that is not within the manufactures operating procedures.

Element #2: The hazard was causing or likely to cause death or serious physical harm.

One employee operating Komatsu D65EX-15 Bulldozer sustained injuries that lead to his death during a towing operation using a Komatsu D65EX-15 Bulldozer to tow a Komatsu PC350-8 Hydraulic Excavator form the mud.

Element #3: Hazard was recognized.

Employer Recognition: The employer provided the CSHO with a Job Safety Hazard Analysis (JHA) they created on 1/15/2016 and had trained employees on the towing/pulling operations of mobile equipment.

**Industry Recognition:** Komatsu D65EX-15 Bulldozer & Komatsu PC350-8 Hydraulic Excavator Operator Maintenance Manual.

**Element #4:** An Abatement method(s) to correct the hazard is as follows:

Among other methods one feasible and acceptable method to correct this hazard would be to:

Follow the manufacture Komatsu Bull Dozer Model D65EX-15 Operators and Maintenance Manual; specifically found on page 3-127 for Machine Towing Method:

- 1) Be sure to use wire rope sufficiently strong for the towing weight.
- 2) When using the towing hook, be sure to use a shackle.
- 3) Set the wire rope level and align it with the track frame.
- 4) Tow the machine slowly.
- 5) Always carry out towing operations within the maximum towing capacity.

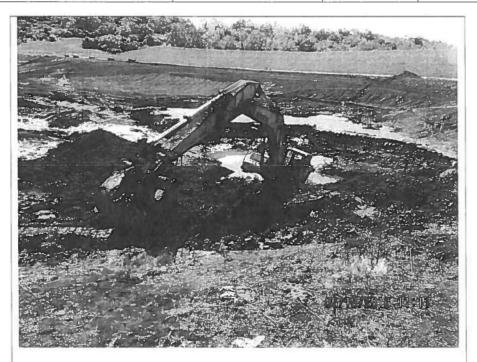
Follow the manufacture Komatsu PC350-8 Hydraulic Excavator Operators and Maintenance Manual; specifically found on page 2-34 & 3-203 Safety Rules for Towing & Towing the Machine;

- 1) Always check that wire rope used for towing has ample strength for the weight of the machine being towed.
- 2) Never tow a machine on a slope.
- 3) Never use wire rope which has cut strands.
- 4) During towing operation, never stand between the towing machine and the machine being towed.
- 5) Operate the machine slowly and be careful not to apply sudden load to the wire rope.
- 6) Always carry out towing operations within the maximum towing capacity.
- 7) If the machine sinks in mud and cannot get out under its own power, or if the drawbar pull of the excavator is being used to tow a heavy object, use a wire rope as shown in the diagram on the right page of 3-203.
- 8) Place pieces of wood between wire ropes and body to prevent damage to ropes and body.
- 9) Hold the wire rope level and direct it straight to the track frame.

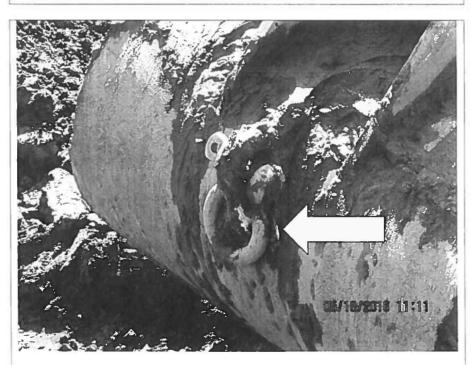


 Inspection Number
 1. Photo ID No.
 2. Date/Time
 3. Citation Number
 4. Item Number
 5. Instance No.

 1148200
 8830, 8831
 5/18/2016
 1
 1
 1



Komatsu PC350-8 Hydraulic Excavator that was being towed by the dozer



Location of the Copperhead Shackle WLL25T CA1-1/34A attached to the bucket of the excavator.

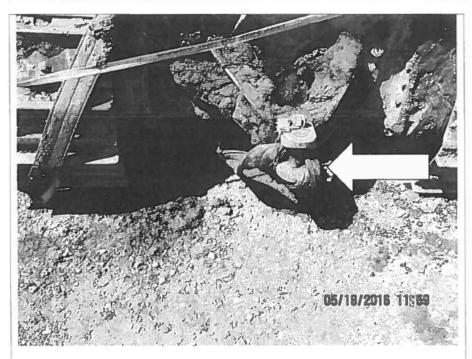
Note: The  $4^{\circ}$  X  $20^{\circ}$  synthetic sling that broke free form the shackle during towing operation.



						*
1	Inspection Number	1. Photo ID No.	2. Date/Time	Citation Number	4. Item Number	5. Instance No
	1148200	8835, 8896	5/18/2016	1	1	1



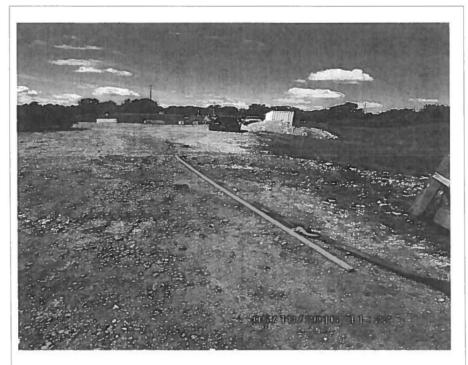
Komatsu Bull Dozer D65EX-15 towing the Komatsu PC350-8 Hydraulic Excavator



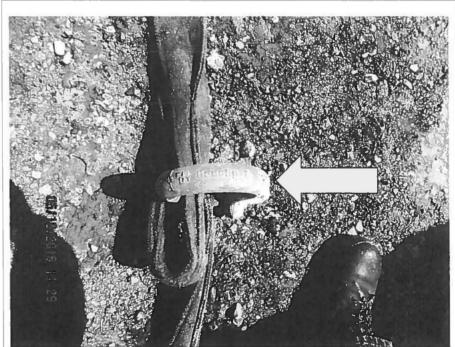
Note: The 4" X 10' synthetic sling attached to the pin of the dozer rigged as a basket hitch.



I	Inspection Number	1. Photo ID No.	2. Date/Time	<ol><li>Citation Number</li></ol>	Item Number	5. Instance No.
1	_					2
١	1140200	005/ 00/1	5/10/2017	1	1	l 4
ı	1148200	8856, 8861	5/18/2016	1	1	1
ı	1170200	0050, 0001	3/10/2010	1		



Note: This photo illustrates the CSHO measured each synthetic sling using his 25' fiberglass expandable engineer rod.



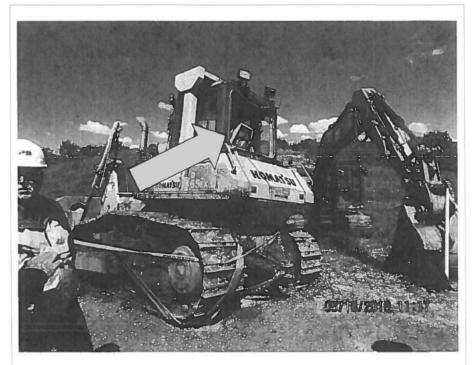
Note: CSHO photographed each shackle attached to the 4" synthetic sling being used for the towing operation of the mobile equipment.

#### U.S. Department of Labor

Occupational Safety and Health Administration



Inspection Number	1. Photo ID No.	2 Date/Time	Citation Number	Item Number	5. Instance No.
1148200	8835, 8848	5/18/2016	1	1	1



Note: Arrow is pointing to the rear window of the dozer where the impact of the strap/shackle struck the seat and the dozer operator.

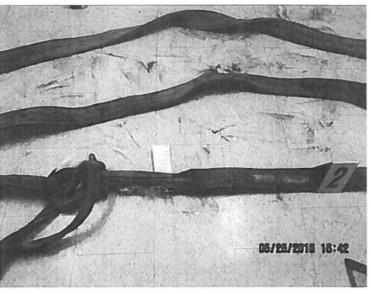


This photo is the 4" X 20' synthetic strap that broke free from the shackle attached to the bucket of the excavator.

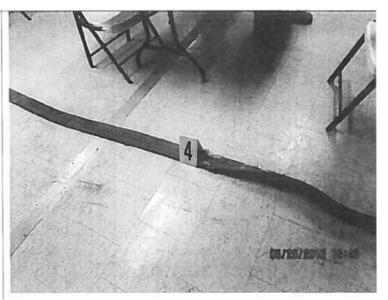


| 1. Photo ID No. | 2. Date/Time | 3. Citation Number | 4 | Item Number | 5 | Instance No. | 1148200 | 8962,8963,8967, 8973 | 5/25/16 | 1 | 1 | 1



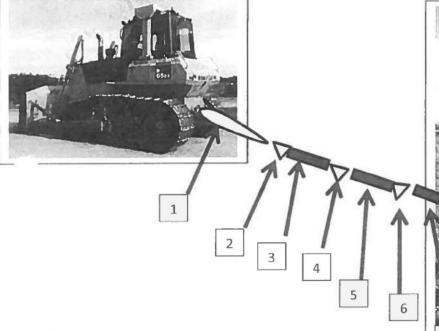






OSHA-89

These photos were taken by CSHO on 5/25/2016. Please refer to CSHO diagram on the locations of the straps/shackles on how they were attached to the mobile equipment during the accident.





KOMATSU Excavator PC350

- 1. 4" X 10' synthetic sling (rigged as a basket hitch) attached to the pin of the dozer.
- 2. Crosby Shackle WLL 17T 1/12
- 3. 4"X 30' synthetic sling
- 4. Crosby Shackle WLL 17T 1/12
- 5. 4"X 20' synthetic sling
- 6. Crosby Shackle WLL 17T 1/12
- 7. 4"X 20' synthetic sling
- 8. Copperhead Shackle WLL25T CA1 -1/34A attached to the bucket of the excavator



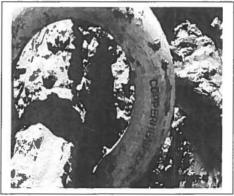
Page 2

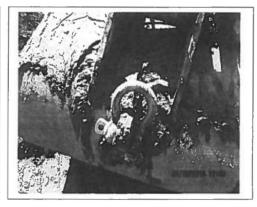


Page 3

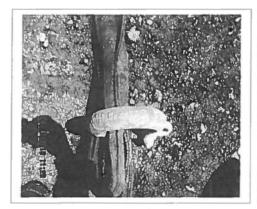
# 8 Shackle that was attached to the bucket of the excavator. Copperhead WLL25T CA1 -1/34A



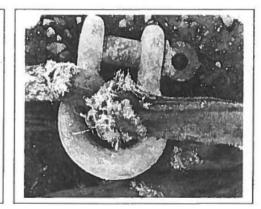




# 2, 4, & 6 Shackle that was attached from the basket hitch strap (1) and between straps (3), (5), & (7). Crosby WLL 17T 1/12, 5 degrees







#### AFFIDAVIT OF MARK RYAN

State of Kentucky )
County of Darress )
Before me, the undersigned notary public, this day, personally, appeared Mark Ryan, to me known, who being duly sworn according to law, deposes and states the following:
1. I am an Area Operations Manager for Headwaters Resources, Inc. and I supervise and oversee territories for Headwaters Resources, Inc. and Headwaters Plant Services in parts of Michigan, Ohio, and Indiana.
2. During September 2015, Headwaters issued a bulletin/alert and discussed the recommendation to tow and recovery heavy equipment by using only steel cable and this issue was also discussed during a monthly safety call with management
3. JHA's are implemented on a site-by-site basis. For example, if employees at a particular site do not operate heavy equipment, then JHA's for operating heavy equipment will not apply
4. During winter 2015, Jason Jolly was working on a long-term assignment in Michigan under my direct supervision and control.
5. In Michigan, Headwaters' employees monitor union labor but do not operate heavy equipment and a towing/recovery JHA was not implemented.
On October 19, 2015, however, I personally discussed and communicated the substance of the Spurlock JHA to Jason Jolly because I knew that he was an equipment operator who would eventually return to the Spurlock facility.
7. Specifically, Jason Jolly was informed that the Spurlock JHA called for the use of steel cable, with an appropriate load rating, to tow and recover heavy equipment.
FURTHER AFFIANT SAYETH NAUGHT.
MARK RYAN
Subscribed and sworn to before me this 1 <sup>st</sup> day of June, 2016 by Mark Ryan.

My County of Residence: 1



#### Process Name:

Plant. Spurlock

Area

Total Cycle Time

Date:

01/15/2016

PPE / Safety Protection:

Steel Toe Boots. Safety Glasses,

Leather Work Gloves, Hardhat

		Main Pr	ocedure
1	Inspect	towing	equipment

Detail Procedure (Analysis)

A supervisor will monitor any and all recovery operations

Prior to beginning any recovery of any mobile equipment the employee using the tow vehicle will inspect the tow equipment prior to use. Ensure the cable and any clevises are serviceable and rated for this operations.

Hazards

Unsafe equipment

Approved by: Fred Cluxton

Checked by: Robbie Lawrence

Created by: JHA Committee

Slips, Trips, Falls

Eye Injury

Struck by or against another piece of equipment

Cuts and scrapes

Protective Measures

Supervisor must be on location and at the

site of all recovery operations

All cables, clevises, and towing points will be inspected for serviceability prior to recovery operations

Ensure that the towing equipment being used is serviceable and rated for recovery operations

Do not use unserviceable equipment

Make sure the tow vehicle is of equal or larger size then the vehicle being towed

Clear surrounding area of other equipment when possible

Clear any individuals in the area

Wear all leather work gloves when handling wire rope (cables)

Move tow vehicle into place

Align the vehicle doing the towing directly in front of the towed vehicle when possible.

Move tow vehicle into place, ensure there is enough room between vehicles to connect tow cables

Struck by another piece of equipment

Crushed between equipment

Slips trips falls

Keep windows clean and clear

Maintain awareness of your surroundings at all times

		Place transmission selector levers in neutral and engage the parking brakes on both vehicles Lower all attachments prior to working between the vehicles		Maintain CB communications with stuck of broken equipment  Never allow anyone to move or stand between vehicles while in motion  Dismount and mount equipment using three point of context focuse the options.
3	Connecting cables between equipment	Secure cable to front of broken, and the rear of the recovery equipment using appropriate pulling/lifting points.	Cuts/ scrapes  Striking others with the loose end or the cable	three point of contact facing the equipment Wear all leather gloves when handling cables Be aware of your surroundings Maintain control of cables while connecting the equipment
4	Towing/ pulling stuck or broken equipment	Raise all attachments off the ground, disengage parking brakes, begin moving the recovery equipment forward until the cable is tight  Keep recovery equipment directly in front of vehicle being towed when possible and continue towing until equipment is no longer stuck	Rear vehicle striking tow vehicle  Cable breaking  Hit by flying objects	Never jerk or snatch pulled equipment  Towed vehicle will assist by using low gear to aid in recovery as needed  Maintain CB communications between vehicles.  Maintain visual contact between vehicles  Once vehicle is unstuck allow tow vehicle to come to a complete stop and back up to release tension from cable
5	Disconnecting/ stowing cable	Ensure there is adequate slack in cable and enough room between vehicles to work safely.  Place transmission selector levers in neutral and engage the parking brakes on both vehicles. Lower all attachments prior to working between the vehicles.  Secure cable to front of broken and the rear of the recovery equipment.	Struck by another piece of equipment  Crushed between equipment  Slips trips falls  Cuts/ scrapes  Striking others with the loose end or the cable and or chain	Maintain awareness of your surroundings at all times  Maintain CB communications with stuck of broken equipment  Never allow anyone to move between vehicles while in motion  Dismount and mount equipment using three point of contact facing the equipment

	using appropriate pulling/lifting points
6	
7	
8	
9	
10	

g appropriate pulling/lifting its		Wea cable		oves when handli	าฐ
			itain control of ecting the equ	cables and chain ipment	s while
			Date	Ву	
	Reviewed Reviewed Reviewed Reviewed Reviewed Reviewed	Revised Revised Revised Revised Revised	1/28/2016	JHA S.R	



Name of Training	Recovery Operations JHA
Description of Class	Reviewed JHA
Name of Instructor	Chester Applegate
Date of Class   1 February 2016	Facility Name Spurlock

Employee ID: #7c; Company objects to release of document

TEN00012-00

## a Mantaanos

# 

# 1358/-/5

6068420240

D65EX-X/ NUMBERS D65PX-67/ D65.VX-67

The sales and relations of personnel cad to a manual before operating or maintaines reaching. This manual should be kept near the for reference and sale windly reviewed

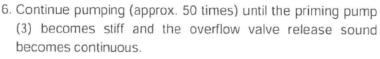
NOTICE

as Operation & Mail rate are Maruhas written in a

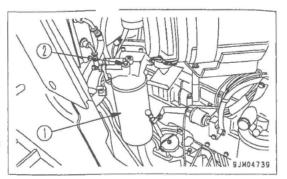
- Loosen air bleed plug (2) at the ful lilter head.
- Loosen the knob of priming pump (3), pump the knob, and check that fuel comes out from air bleed plug (2).
   After checking, tighten the plug.

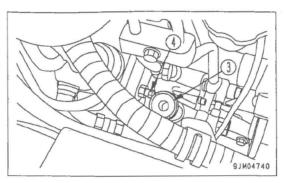
Tightening torque: 7.8 to 9.8 N·m (0.8 to 1 kgf·m, 5.8 to 7.2 lbft)

- 4. Loosen air bleeder (4) of the supply pump.
- 5 Pump priming pump (3) until no more bubbles come out with the fuel from air bleeder (4), then tighten air bleeder (4). Tightening torque: 4.9 to 6.9 N·m (0.5 to 0.7 kgf·m, 3.6 to 5.1 lbft)









- 8. If the air is not bled properly, return to Step 3 and bleed the air again.
- 9. For normal starting operations, turn key in the starting switch to the START position to start the engine.

#### **MACHINE TOWING METHOD**

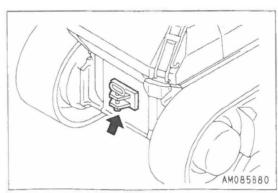
#### WARNING

- · Be sure to use a wire rope sufficiently strong for the towing weight.
- · When using the towing hook, be sure to use a shackle.
- · Set the wire rope level and align it with the track frame.
- · Tow the machine slowly.

#### NOTICE

The maximum towing capacity for this machine is 14,275 kg (140,000 N). Always carry out towing operations within the maximum towing capacity.

If the machine gets stuck in the mud or a heavy thing needs to be towed, install a towing wire rope to the draw bar pin.



UEAM007002

## Operation & Maintenance Manual

## PC350LC-8 PC350NLC-8

#### HYDRAULIC EXCAVATOR

#### SERIAL NUMBER

PC350LC-8

- K50001 and up

PC350NLC-8

- K50001 and up

PC350LCD-8

- K50001 and up

PC350NLCD-8

- K50001 and up



#### WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept inside the cab for reference and periodically reviewed by all personel who will come into contact with the machine.



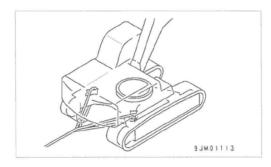
#### TOWING

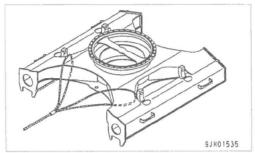
#### SAFETY RULES FOR TOWING

Serious injury or death could result if a disabled machine is towed incorrectly or if there is a mistake in the selection or inspection of the wire rope.

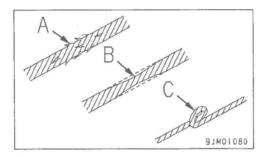
For towing, see "TOWING THE MACHINE (3-203)".

- Always check that the wire rope used for towing has ample strength for the weight of the machine being towed
- Always wear leather gloves when handling wire rope.
- Never tow a machine on a slope.





 Never use a wire rope which has cut strands (A), reduced diameter (B), or kinks (C). There is danger that the rope may break during the towing operation.



- During the towing operation, never stand between the towing machine and the machine being towed.
- Operate the machine slowly and be careful not to apply any sudden load to the wire rope.

#### TOWING THE MACHINE

#### **▲** WARNING

Serious injury or death could result if a disabled machine is towed incorrectly or if there is a mistake in the selection or inspection of the wire rope.

Always check that the wire rope used for towing has ample strength for the weight of the machine being towed.

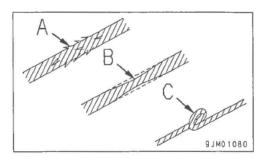
Never use a wire rope which has cut strands (A), reduced diameter (B), or kinks (C). There is danger that the rope may break during the towing operation.

Always wear leather gloves when handling wire rope.

Never tow a machine on a slope.

During the towing operation, never stand between the towing machine and the machine being towed.

Operate the machine slowly and be careful not to apply any sudden load to the wire rope.

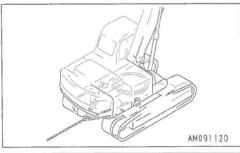


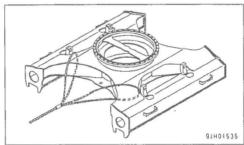
#### NOTICE

The maximum towing capacity for this machine is 197,100 N (20,100 kgf). Always carry out towing operations within the maximum towing capacity.

- If the machine sinks in mud and cannot get out under its own power, or if the drawbar pull of the excavator is being used to tow a heavy object, use a wire rope as shown in the diagram on the right.
- Place pieces of wood between wire ropes and body to prevent damage to ropes and body.
- Hold the wire rope level and direct it straight to the track frame.
- When towing a machine, travel at a speed of less than 1 km/h for a distance of only a few meters to a place that is suitable for carrying out repairs.

This is for use only in emergencies.







#### CORPORATED SUPERVISOR'S REPORT OF INCIDENT

D INITIAL I	Z FINIAL	FACILITY NAME, ADI				
☐ INITIAL (	X FINAL	Spurlock Power	Station Maysville, Ker	ntucky, 41056	6 (606)883	-3022
Control of the control of	REPORTED:	SPECIFIC LOCATION				
	7/2016	10542 Brower R	oad, North Bend, Ohio	South east	corner of t	he landfill
Jamie Higgins			Site Manager			
TYPE OF INCIDENT (Check a	all that apply)					
TIPE OF MCIDENT CHECK	an that apply)					
	JURY / ILLNESS	☐ HW INTERNAL	PROPERTY DAMAGE			
DRUG / ALCOHOL TEST	NAME	& LOCATION OF CLINI	C:			
☐ YES ☒ NO		ſ	N/A			
	Α	. EMPLOYEE	INFORMATION			
EMPLOYEE NAME & SSN:		DEPT:		JOB TITLE:		
Jolly, Jason	OK #7c			Operator		
HOME ADDRESS:		HIRE DATE:	DATE OF BIR		:	
NOV D.: #7.		05/06/004	3 #7c	45		⊠ MALE
NOK Privacy #7c		05/26/201	#/C	#7		M. MACE
						FEMALE
		INCIDENT IN	FORMATION			
MEDICAL ATTENTION:		. INCIDENT IN	THE WORKSITE, WHERE W	AS IT GIVEN2		
				IASTI GIVERI		
☐ NONE ☐ FIRST AID ONSITE						
DR's OFFICE	ADDRESS					
☐ EMERGENCY ROOM	CITY		STATE:	ZIP·		
☐ HOSPITALIZED			H CARE PROFESSIONAL:			
(in-patient)  ☑ EMS RESPONSE	WALL OF THE OR					
			THE OF WORDS		IS ADDITION	DIE DATE OF DEATH.
(If applicable)	100	BEGAN WORK:	TIME OF INCIDENT:			BLE, DATE OF DEATH:
	5:00	_ 🛮 AM 🗆 PN			5/17/201	
WHAT WAS EMPLOYEE DOING J specific Examples 'climbing a ladd	UST BEFORE THE INC der while carrying roofing	IDENT OCCURRED? De materials*; *spraying chic	escribe the activity, as well as the prine from hand sprayer"; "daily	ne tools, equipmen computer key-ent	t or material the ry*.	e employee was using. Be
Employee was operating	a D65 dozer in a	n attempt to recov	er a PC350 Excavato	r. Straps and	clevises w	ere used as
recovery equipment.						
WHAT HAPPENED? Tell how the during replacement", "Worker development"	ncident occurred. Exam	ples: "When ladder slippe	d on wet floor, worker fell 20 fe	et"; "Worker was s	prayed with chl	orine when gasket broke
The D65 dozer operated	by the employee	was being used a	s an anchor to help in	the extractio	n of a PC3	50 Excavator. As
the excavator operator w	as attempting to e	extract his machin	e from the stuck positi	ion; an unkno	own part of	the recovery
equipment failed; sending	g an unknown pai	rt of the recovery	equipment into the ope	erators' comp	artment, th	nrough the seat
striking the employee.						
WHAT WAS THE INJURY OR ILLE	NESS? Tell the part of the	ne body that was affected	and how it was affected, be mo	ere specific than "h	urt", "pain", or "	sore* Examples
"strained back", "chemical burn, har Fatality	iu , carpai tunnei syndro	Jine .				
	DIRECTI V	UE EMPLOYEES E	Nes "especial fland" tables in a	*radial arm caus	If this question	does not apply to the
WHAT OBJECT OR SUBSTANCE incident, leave it blank		ME EMPLOYEE7 Examp	nes concrete floor", "chlorine",	Idulai diili SdW	ii una question	does not apply to the
Unknown part of extracting	ng equipment.					
1						

C. HEADWATERS INTERNAL PROPERTY LAMAGE SKIP THIS SECTION IF NOT APPLICABLE HEADWATERS PROPERTY DAMAGED/INVOLVED: COST TO: x REPAIR REPLACE Operators cab on Komatsu D65 dozer. Estimated Cost \$5000 DESCRIBE DAMAGE: Operators cab had rear window, front window, side window and seat assembly damaged. Sheet metal on rear of cab also received minor cosmetic damage. D. MEDICAL TREATMENT RESULTS (CHECK ALL THAT APPLY) RELEASED TO FULL DUTY RELEASED ON RESTRICTED DUTY PRESCRIPTION MEDICATION ISSUED PLACED OFF WORK BY DOCTOR E. CAUSES DIRECT CAUSE OF INJURY: Unknown object striking the employee. INDIRECT CONTRIBUTING CAUSES: Employees failed to follow proper procedure and used improper equipment to recover stuck machine. F. CORRECTIVE & PREVENTATIVE ACTION(S) WHAT ARE YOU DOING TO PREVENT SIMILAR OCCURRENCES? ACTION ITEM RESPONSIBLE PARTY DATE COMPLETED Follow established procedures according to the Job Hazard Analysis Safety Coordinator 6/8/2016 (JHA), recovering/towing & pulling equipment, which is already in place. Change part of the above mentioned JHA to an absolute, Health and Safety Coordinator 6/15/2016 Safety Standard - Towing / Pulling Stuck Equipment Review with all employees that they are not to perform any task that they Safety Coordinator 6/8/2016 have not reviewed in the pre job brief or reviewed the proper JHA before starting the task. NAME OF INVESTIGATOR: SIGNATURE:

FORWARD REPORT WITHIN FORTY-EIGHT (48) HOURS. PARTIALLY COMPLETED REPORTS MUST BE FOLLOWED BY COMPLETE REPORT WHEN AVAILABLE BUT NO LATER THAN 5 WORKING DAYS

SIGNATURE:

DATE: 09/19/2016

COPY TO:

FACILITY FILES - ORIGINAL AREA / REGIONAL GENERAL MANAGER BUSINESS UNIT VP REGIONAL & CORPORATE HEALTH & SAFETY

NAME OF INVESTIGATOR:

NAME OF INVESTIGATOR

### Sampling Worksheet Bulk

## U.S. Department of Labor Occupational Safety and Health Administration

Fri, Jun 3, 2016 08:25 AM Reporting ID Activity/Visit Number | OIS Exposure Record Number **OIS Sampling Sheet Number** 0522000 1148200 225125 242477 **Establishment Name** Sampling Date **Shipping Date** Headwaters Plant Services, Inc. 05/31/2016 06/03/2016 CSHO/Consultant Signature Print CSHO/Consultant Last Name CSHO/Consultant Id Duration Employee (Name, Address, Telephone Number) or Area Information **Exposure Information** Number Lawrenceburg Landfill 3 4 hour **Exposure Frequency** 1 day Job Title Occupation Code Weather Conditions Photo(s) Operators PPE (Type and Effectiveness) Worn? Description **PPE Subcategory PPE Effectiveness PPE Category Engineering Controls Control Category Control Subcategory** Used? **Control Effectiveness** Description Job Description, Operation, Work Location(s) and Ventilation **Bulk Sampling Data** Sample Status Ready For Lab Sampling Type Bulk Unknown Sample Purpose | Exposure assessment Sample Submission No. Location HPS-1 Excavation area near chimney. Analyze Samples for: (Indicate Which Samples to Include in Calculations) Substance Code **Substance Description** S777 Soil Initials Interference and IH Comments to the Lab Chain of Custody Date appears to be fly ash Seals Intact? Received in Lab? Received by Analyst

Interference and IH Comments to the Lab	Chain or Custody Initials Date				
	Analysis Complete				
	Calculation Checked				
	Supervisor OK'd				
	Case File Page				

		¥	Lab l	Results		
Sample Submission No.	Substance Name	Value	Units	Weight	Units	Lab Result Type

#### Analyst Comments

					Expo	sure Assessn	nent					
ID	Substance Name	Substance Code	Value	Units	Type	Severity	OEL	Units	SAE	UCL	LCL	Status

#### **Calculations and Notes**

Shipping Method: USPS

Air Sampling Report U.S. Departme. of Labor Occupational Safety and Healt lministration.

Page 1 of 2

1. Reporting ID 522000 2. Inspection Number 1148200

3. Sampling Number

242477

Establishment Name

Headwaters Plant Services, Inc.

6. Sampling Date CSHO ID

7. Shipping Date

8.Date Result Received

31 MAY 2016

01 JUN 2016

9. Job Title

10.Occupational

Code

11. Number Exposed

20.

PEL

Not applicable

12. Frequency of Exposure

Exposure Summary

16. 15. 14. Substance Code

17. Exp Smpl Rqstd Type Type

18.Exp Level

19. Units

22. Adi Severity

23. Citation information

No FTA Over Eng PPE Trng Med OTH Cit Exp

TWA calculated on actual time sampled

The I. H. is free to make changes on the Form 91B and submit "'

Classification of L90559:

26.Analyst's Comments (Analytical Method)

OSHA TD-194

Behous

Init. Date N 06 JUN 2016 GPS

06 JUN 2016 DLA

DLA 08 JUN 2016

SEA

Type: arc. Checked This sample is Type C because it was

Sandy Clay

Cohesive

freely seeping water.

Textural:

Structural:

f. Supr. OK'd

JR 08 JUN 2016

08 JUN 2016

28 Submission

L90559

HPS-1 number 29 Lab Sample No. L90559 (Minutes/Type)

30. Analyte

31. Analysis Results/ 32. Sample included in calculations of

s777 Soil

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

#### 33. Analyte Code SAE Value

5777

M

Y

MILLIGRAMS PER LITER (URINE) MICROGRAMS PER DECILITER (BLOOD) C

PICO CUPIES PER LITER (RADON GAS P PARTS PER MILLION

FIBERS PER CUBIC CENTIMETER X MICROGRAMS MILLIGRAMS PER CUBIC METER PERCENT

MILLIGRAMS 1 FIBERS PER MM2

N MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 242477 Air Sampling Report U.S. Departme. of Labor Occupational Safety and Healt Iministration.

Page 2 of 2

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 242477





17	HACONF	UNAIED	SOFERV	190K 9 K	LFURIU	LINCIDEIAI
☐ INITIAL ⊠		CILITY NAME, ADDR Urlock Power S	tess, phone tation Maysville, Kent	tucky, 41056	6 (606)883-3	3022
INCIDENT DATE: DATE RE 05/17/2016 05/17/		CIFIC LOCATION OF	FINCIDENT: ad, North Bend, Ohio	South east	corner of the	e landfill
INCIDENT REPORTED TO: Jamie Higgins	1.		TITLE: Site Manager			
TYPE OF INCIDENT (Check all t	hat apply)					
☐ NEAR MISS ☐ INJUI			OPERTY DAMAGE	☐ OTHER	,	
☐ YES ☑ NO	NAME & LO	CATION OF CLINIC:				
	^ F	MDI OVEE I	NFORMATION			
EMPLOYEE NAME & SSN:	А. С	DEPT:	NFORMATION	IOD TITLE		
Jolly, Jason		DEP1:		JOB TITLE: Operator		
HOME ADDRESS:		HIRE DATE:	DATE OF BIRTH		:	
		05/26/2013			٥	MALE
						FEMALE
	B. IN	CIDENT INF	ORMATION			
MEDICAL ATTENTION:	IF TREATMENT WAS G	IVEN AWAY FROM T	THE WORKSITE, WHERE WA	S IT GIVEN?		
☐ NONE ☐ FIRST AID ONSITE	FACILITY:					
☐ DR's OFFICE	ADDRESS:					
☐ EMERGENCY ROOM	CITY:		STATE:	ZIP:		
☐ HOSPITALIZED (In-patient)  ☑ EMS RESPONSE	NAME OF PHYSICIAN O	R OTHER HEALTH	CARE PROFESSIONAL:			
W EIVIS RESPONSE						
CASE NUMBER FROM OSHA LOG: (If applicable)	TIME EMPLOYEE BEGA	AN WORK:	TIME OF INCIDENT:		IF APPLICABL	E, DATE OF DEATH:
		AM 🗆 PM				
WHAT WAS EMPLOYEE DOING JUST specific. Examples: 'climbing a ladder w	BEFORE THE INCIDENT while carrying roofing materi	OCCURRED? Descials"; "spraying chloring	ribe the activity, as well as the se from hand sprayer; "daily co	tools, equipment emputer key-entr	or material the e	mployee was using. Be
Employee was operating a [	065 dozer in an atte	empt to recover	a PC350 Excavator.	Straps and	clevises we	re used as
recovery equipment.						
WHAT HAPPENED? Tell how the incid during replacement"; "Worker developed			on wet floor, worker fell 20 feet	; "Worker was sp	orayed with chlori	ne when gasket broke
The D65 dozer operated by	the employee was	being used as	an anchor to help in the	he extraction	of a PC350	Excavator. As
the excavator operator was equipment failed; sending as						
striking the employee.	i dilkilowii partoi t	ne recovery eq	dipinione into the open	atoro comp	artificiti, till	ough the seat
what was the injury or illness *strained back*, *chemical burn, hand*; * Fatality		that was affected and	d how it was affected, be more	specific than *hu	nt", "pain", or "son	e*. Examples:
WHAT OBJECT OR SUBSTANCE DIR incident, leave it blank. Unknown part of extracting 6		PLOYEE? Examples	"concrete floor", "chlorine"; "ra	adial arm saw <sup>a</sup> . I	f this question do	es not apply to the

#### C. HEADWATERS INTERNAL PROPERTY LAMAGE

SKIP THIS SECTION IF NOT APPLICABLE

HEADWATERS PROPERTY DAMAGED/INVOLVED:	COST TO:	x REPAIR REPLACE
Operators cab on Komatsu D65 dozer.	Estimat	red Cost \$5000
DESCRIBE DAMAGE:		
Operators cab had rear window, front window, side window and seat assen	nbly damaged. Sheet me	etal on rear of cab also
received minor cosmetic damage.		
D. MEDICAL TREATMENT F (CHECK ALL THAT APPLY)	RESULTS	
	EASED ON RESTRICTED	DUTY
PRESCRIPTION MEDICATION ISSUED PLA	CED OFF WORK BY DOC	TOR
E. CAUSES		
DIRECT CAUSE OF INJURY:		
Unknown object striking the employee.		
INDIRECT CONTRIBUTING CAUSES:		
Employees failed to follow proper procedure and used improper equipment	to recover stuck machine	Э.
F. CORRECTIVE & PREVENTATIVI	E ACTION(S)	
F. CORRECTIVE & PREVENTATIVE	L ACTION(3)	
WHAT ARE YOU DOING TO PREVENT SIMILAR OCCURRENCES?		
ACTION ITEM	RESPONSIBLE PARTY	Y DATE COMPLETED
Follow established procedures according to the Job Hazard Analysis	Safety Coordinator	6/8/2016
(JHA), recovering/towing & pulling equipment, which is already in place.		
Change part of the above mentioned JHA to an absolute, Health and	Safety Coordinator	6/15/2016
Safety Standard - Towing / Pulling Stuck Equipment	O-f-t- Odin-t	0/0/0046
Review with all employees that they are not to perform any task that they have not reviewed in the pre job brief or reviewed the proper JHA before	Safety Coordinator	6/8/2016
starting the task.		
Starting the task.		
NAME OF INVESTIGATOR: SIGNATURE:	-	DATE:/_/
NAME OF INVESTIGATOR: Chester Affect of signature: signature	algray!	DATE: 00/1/912016
NAME OF INVESTIGATOR FORM ELECTION SIGNATURE: Agricon	il. They	DATE: 9 19 12016
FACILITY MANAGER NAME: for 1 / Oct S SIGNATURE: for / Sy		DATE: 91191296

FORWARD REPORT WITHIN FORTY-EIGHT (48) HOURS. PARTIALLY COMPLETED REPORTS MUST BE FOLLOWED BY COMPLETE REPORT WHEN AVAILABLE BUT NO LATER THAN 5 WORKING DAYS

COPY TO:

FACILITY FILES - ORIGINAL AREA / REGIONAL GENERAL MANAGER BUSINESS UNIT VP REGIONAL & CORPORATE HEALTH & SAFETY



# SITE SAFETY PLAN FOR HEADWATERS PLANT SERVICES

Zimmer Power Station Miami Fort Station Headwaters Plant Services (HPS) is known nationally for its expertise in the handling of Coal and Coal Combustion Bi-Products. The Zimmer Generating Station and the Miami Fort Power Plant are both owned by Duke Energy. The Zimmer Generating and located in Moscow, Ohio and the Miami Fort Power Plant is located two miles east of Lawrenceburg, Indiana both on the banks of the Ohio River.

HPS will cap the existing ash landfill recently completed at both Zimmer and Miami Fort Generating Stations. The following plan is based on regulatory standards (OSHA, EPA,US Coast Guard and DOT) and the Headwaters Corporate Health and Safety Manual, and is considered appropriate safety measures at Zimmer and Miami Fort Generating Station location for:

Landfill Closure (Cap)

These tasks include:

- Heavy equipment operations
- Truck driving operations (15 MPH inside plant area 30 MPH on haul road)
- General Information / Record Keeping

Training for each task is conducted and documented as required. *Headwaters EH&S Standard 15.0* 

#### Site Safety Management: Headwaters EH&S Standard 1.6

Site Safety management is overseen by the site manager, with the HPS employees taking observations of surroundings and activities. We are also overseen periodically by our regional Corporate Safety Manager.

HPS employees will follow all appropriate regulatory standards, Duke Energy safety procedures and Headwaters EHS Standards. The Zimmer and Miami Fort Generating Stations site specific safety plan is based on these requirements and explained in this site plan.

Safety inspections are performed monthly as required.

#### Hazard Communication: Headwaters EH&S Standard 14.4

Hazard Communication for this plant is based on OSHA, US Coast Guard and DOT Standards and Headwaters Corporate Health and Safety Manual, Section #9, and includes:

- Chemical lists
- Material Safety Data Sheets (MSDS)
- Proper labeling
- Proper chemical storage

Training will be conducted to educated Zimmer Generating Station employees. These topics will be covered in the New Employee Safety Checklist, Site Safety Orientation and weekly safety meetings. These lists will be kept on site at the Zimmer Generating Station.

#### **Site Control**

All visitors to the Zimmer Generating Station site must report to Gate #4 Guard Shack before proceeding on to any other on-site location.

#### Medical Surveillance Requirements: Headwaters EH&S Standard 14.0

There are no additional site specific medical surveillance requirements at this location. However, if this changes updates to this Site Safety Plan will be made in a timely manner.

#### Emergency Response: Headwaters EH&S Standard 5.0

- HPS employees will follow Zimmer Generating Station employee's procedures for all emergencies.
- Evacuation route will be posted with specific meeting location marked.
- Emergency numbers will be posted.
- Eye wash station is located in HSP site office and is clearly marked.
- First-Aid Kit also located in HPS site office and is clearly marked.
- Training for these procedures is furnished as required.
- Emergency Shower is located in bathroom and is clearly marked.

#### Personal Protective Equipment: Headwaters EH&S Standard 13,4

Personal protective equipment requirements are based on the written PPE assessments and job requirement. See PPE assessment on site for assistance.

• The use of hard hat, safety glasses, safety vests, and steel toed boots are required when working at Zimmer and Miami Fort Generating Stations.

#### Hearing Conservation Plan: Headwaters EH&S Standard14.2

- Based on the equipment being used, and similar situations at other HPS facilities, no
  Hearing Conservation Plan is needed at the Zimmer Generating Station. At other
  facilities reading did not exceed 85 dBA on a Time Weighted Average over an 8-hour
  work period. However, hearing protection will be made available to employees if
  desired.
- If conditions change or concerns arise, noise monitoring will be considered and performed if decided.

#### Air and Personal Monitoring Requirements: Headwaters EH&S Standard 14.0

• Based on current site conditions, none are required.

#### Confined Space Entry: Headwaters EH&S Standard 13.2

- If confined space entry is required, our Corporate Compliance Department will be contacted for procedure assistance. Training will be provided based on Headwaters Corporate Health and Safety Manual, Section #6.
- All CSE locations MUST be labeled as such and a list of these locations kept in the Illinois River Terminal main office.

#### LOCK OUT/TAG OUT: Headwaters EH&S Standard 13.1

A Lock out/Tag out program has been developed. A procedure will be written for each task requiring Lock out/Tag out.

#### **Incident Reporting** Headwaters EH&S Standard 3.0

 All incident reports are to be addressed following the guidelines provided by the Headwaters Corporate Health and Safety Manual, Section #3. Also report any incident to plant contact & security. The phone number is (513) 647-6911.

#### Spill Control Headwaters EH&S Standard 14.4

- Spill control kits are stored in the tool trailer on location at all times.
- Spills will be cleaned up immediately and reported to Duke Energy personnel via cellular phone. (513) 467-5205 ext.6911
- Two way communication will be maintained with Duke Energy and Headwaters at all times when onsite via two way radio.

This plan will be reviewed annually at a minimum.

	r

Development Date: October, 16 2013

5-16-16 Jan Just 12 Trees

#### DUKE ENERGY OHIO, INC.

**Purchase Order** 

Authorized document

Site ID:

NF-MFORT Miami Fort Station

PO: 701947

Rev No.: 0

Lawrenceburg Landfill Area 1 Closure Fixed Price Work

Master Contract#:

Description:

Date of Issue:

10/01/2013

Payment Terms:

NET45

Requested Delivery Date:

Freight Terms:

Per Contract

Purchasing Agent:

Keyes, Michael C

Ship Via:

Phone:

N/A

FOB:

Email:

Michael.Keyes@duke-energy.com

Currency Code:

USD

FAX:

OH

Vendor:

000115976001

Ship To:

Bill To:

HEADWATERS RESOURCES INC

MIAMI FORT STATION

Mail original and one copy of the invoice to:

U.S. ROUTE 50

Duke Energy Corporation

10653 SOUTH RIVER FRONT PARKWAY

11021 Brower Road

P O BOX 37929

SUITE 300

45052

ST25B

NORTH BEND

31230

Attention:

South Jordan UT

84095 USA

FEDEX Air Acnt No .:

1144-4444-8

CHARLOTTE NC

28237

801/984-9400

801/984-9410

UPS Account:

492158

Attention:

Attention:

Page 1 of 3

10/03/2013 10:20

#### DUKE ENERGY OHIO, INC.

#### **Purchase Order**

Authorized document

Site ID:

Miami Fort Station

PO: 701947

Rev No.: 0

Lawrenceburg Landfill Area 1

Closure Fixed Price Work

Master Contract#:

Description:

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Line

Catalog Code

Delivery Date

NF-MFORT

Qtv

Units

Unit Cost Line

Line Cost

Contract Ref #:

09/24/2013

EA .

\$1.0000

Description

Lawrenceburg Landfill Area 1 Closure Fixed Price Work Issued to Headwaters Resources

Fixed Price Scope of Work includes the following:

Mobilize/demobilize
Clear and grub borrow area
Install clay cap
Install general fill cap
Install topsoil
Seed and straw
Install eroston control
Reclaim disturbed areas
Install temporary.cover
Install hauf road

Install surface water control structures

Install diversion berms

PR written for \$838,355.10 This price includes 10% contingency. Contractor to NOT see this number. Base value of scope of work is \$762,141 to be issued to contractor.

MFR:

MFR Model#:

MFR Part#:

MSDS REQ'D(Y/N):

Total PO Cost:

INVOICE ROMT

TO ENSURE TIMELY PAYMENT, INVOICE PRICE, QUANTITY, AND UNIT OF MEASURE MUST EXACTLY MATCH THE PURCHASE ORDERS AND QUOTES. TO DO OTHERWISE, MAY CAUSE INVOICE TO BE RETURNED TO YOU OR PAYMENT TO BE DELAYED.

10/03/2013 10:20

Page 2 of 3

# DUKE ENERGY OHIO, INC. Purchase Order

Authorized document

Site ID:

NF-MFORT

Miami Fort Station

PO: 701947

Rev No.: 0

Lawrenceburg Landfill Area 1

Closure Fixed Price Work

Master Contract#:

Description:

#### ROUTINGINSTRUCTIONS

#### Routing Instructions

ROUTING INSTRUCTIONS ARE AN INTEGRAL PART OF THIS PURCHASE ORDER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS IN ANY MANNER WITHOUT PRIOR APPROVAL OF DUKE ENERGY LOGISTICS GROUP WILL BE CONSTRUED AS A DIRECT VIOLATION OF THIS CONTRACT. IN THE EVENT ROUTING INSTRUCTIONS CANNOT OR SHOULD NOT BE EXECUTED AS INSTRUCTED IN THIS PURCHASE ORDER, VENDOR IS INSTRUCTED TO CONTACT THE BUYER OR DUKE ENERGY LOGISTICS GROUP AT 800-279-8729 FOR REVISED ROUTING INSTRUCTION. FAILURE TO COMPLY WITH THESE INSTRUCTIONS WILL RESULT IN FREIGHT CHARGES BEING FOR THE VENDOR'S ACCOUNT.

NOTE: SHIPMENTS ROUTED VIA FEDEX OR U.P.S. ARE NOT TO EXCEED 150 LBS FOR THE TOTAL SHIPMENT. WEIGHTS EXCEEDING THESE LIMITS ARE TO BE REFERRED TO THE DUKE ENERGY LOGISTICS GROUP FOR REVISED SHIPPING INSTRUCTIONS. USE OF MULTIPLE BILLS/SHIPMENTS TO CIRCUMVENT THESE WEIGHT LIMITS ARE NOT ACCEPTABLE, AND IF SO USED. ALL FREIGHT CHARGES WILL BE FOR THE VENDOR'S ACCOUNT.

IN THE EVENT THE MATERIAL IS TO BE SHIPPED AS FREIGHT COLLECT, THE VENDOR MUST LOG IN TO THE TRANSPORTATION MANAGEMENT SYSTEM AT https://powertms.mercurygate.net/MercuryGate/login/mgLogin.jsp TO ENTER A SHIPPING REQUEST OR CALL DUKE ENERGY LOGISTICS AT 800-279-8729 TO ARRANGE A SHIPMENT.

IN THE EVENT THAT THIS PURCHASE ORDER IS GENERATED FROM AN EXISTING CONTRACT BETWEEN DUKE ENERGY, OR A SUBSIDIARY THEREOF, AND THE VENDOR, ALL SHIPPING TERMS AND CONDITIONS ESTABLISHED BY CONTRACT WILL APPLY.

\* IF THE SHIPPING INSTRUCTIONS ON THIS PURCHASE ORDER OR CONTRACT RELEASE INDICATE UPS GROUND OR FEDEX AÌR, PLEASE USE THE DUKE ENERGY ACCOUNT NUMBERS PRINTED ON THE PURCHASING DOCUMENT FOR THE ABOVE SHIPPING LOCATION FOR ROUTING. PLEASE NOTE THAT EACH SHIPPING LOCATION DOES HAVE A UNIQUE ACCOUNT NUMBER.

IN THE EVENT ROUTING INSTRUCTIONS CANNOT BE EXECUTED, CONTACT THE DUKE ENERGY LOGISTICS GROUP AT 800-279-8729 FOR REVISED ROUTING INSTRUCTIONS.

\* BILL TO ADDRESS FOR ALL COLLECT SHIPMENTS FOR DUKE ENERGY IS AS FOLLOWS: DUKE ENERGY C/O MIO LOGISTICS PO BOX 11250 OVERLAND PARK. KS 65207

Guldelines for Wood Packing Materials.

U.S., Canada and Mexico is strictly enforcing "International Standards for Phyto-sanitary Measures Publication No. 15(ISPM 15)". Wood packing for all shipments that require customs clearance, including skids, crates and pipe dunnage must be treated to the ISPM 15 standard and is required to bear the unique certification stamp. Seller will be responsible to insure all goods shipped meet ISPM standards.

\*\*\*\*\* End Of The Document \*\*\*\*\*

Authorized document

Page 3 of 3

Duke 9/9/2013

Miami Fort and Zimmer Stations
Permanent Cap Construction Projects

Contract term: September 2013 - September 2016

Current contractor on-site: none

Other likely bidders: Charah, Trans Ash, Waste Management, Utter Bld due date and time: Tuesday September 10th at 4:30 PM EDT

#### Scope of Work Summary

- The project starts this fall and extends until September 30, 2016.
- · The project will require only about 1 to 2 months of work at each station each year. The work would be done in the late summer or early fall each year. In other words in each of the four years you'll move in, work for a few weeks to cap what they have ready, then move back out.
- In general the work consists of: implementation of E&S controls; prepping Duke's on-site borrow areas (grubbing, stripping topsoil and establishing access); minor fine grading of the ash to get it ready for the cap placement (this is T&M); loading, hauling, placing, moisture conditioning and compacting a 2 foot thick clay cap; loading, hauling and placing vegetative soil cover over the cap (24" thick at MHZ); seeding and mulching the final surface; regrading and reclaiming the borrow sites.
- · The other bidders in attendance were Charah, Trans Ash, Utter and Waste Management no local dirt contractors
- The quote pricing is fixed for the duration of the four years no annual escalation of the pricing will be permitted (we are however accounting for inflationary effects in our costs)

At WHZ there is other work required over the four years as well: constructing storm water diversion berms, constructing the permanent aggregate haul road, a little bit of pipe work

- · Duke pays for all fuel
- Likely equipment for the projects GPS placement dozer with 6-way blade, a dozer to maintain the haul routes and borrow site, an 815 compactor (this is mandatory as per their CQA document this is the compactor they built the test pads with), 5K gal artic water truck at MFS, 4K gal tandem water truck would work at WHZ, three or so 40TN artic dump trucks at MFS, 25CY tandem dumps would work at WHZ, 3CY excavator, 100HP 4WD ag tractor, offset disc, seeding equipment, other miscellaneous pieces from time to time
- The clay and other dirt for the work is on site at each of the plants and is accessible without having to drive on any public roads. The access road to the borrow at MFS is steep (17%) so we'll likely need artics there
- Duke has already pre qualified the clay resources
- The likely work force includes a superintendent, dozer, hoe and compactor operators, some dump truck drivers, and a water truck driver
- · Duke performs final surveys and the surveys to determine pays quantities
- · Duke has a consultant (S&ME) to perform the compaction testing and other CQA work
- The landfill slopes are on a 4:1

Hamilton County Sheriff's Office



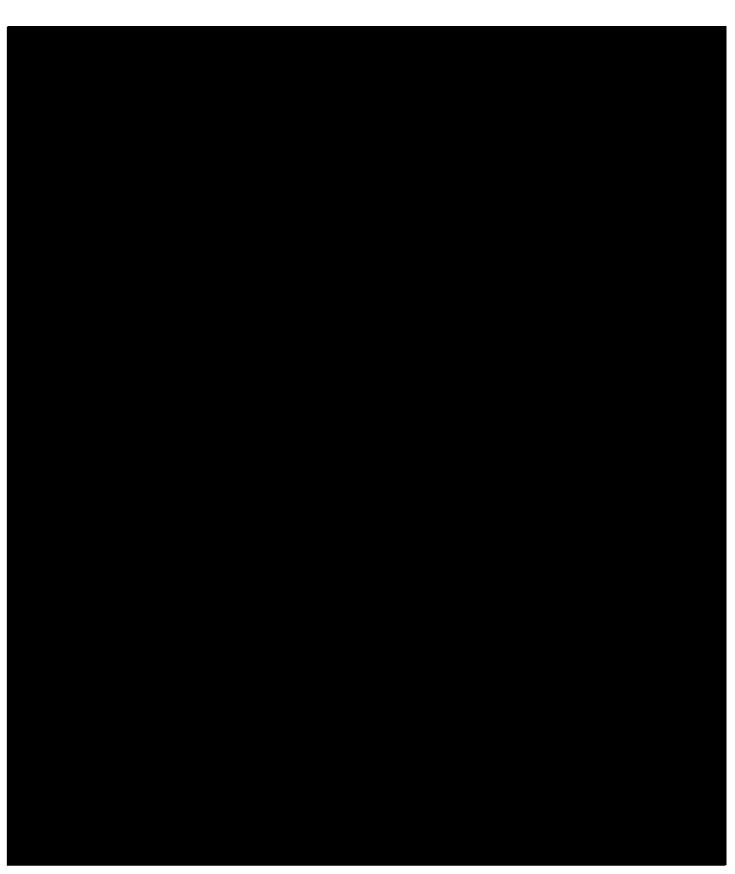
Deceased Person Report #

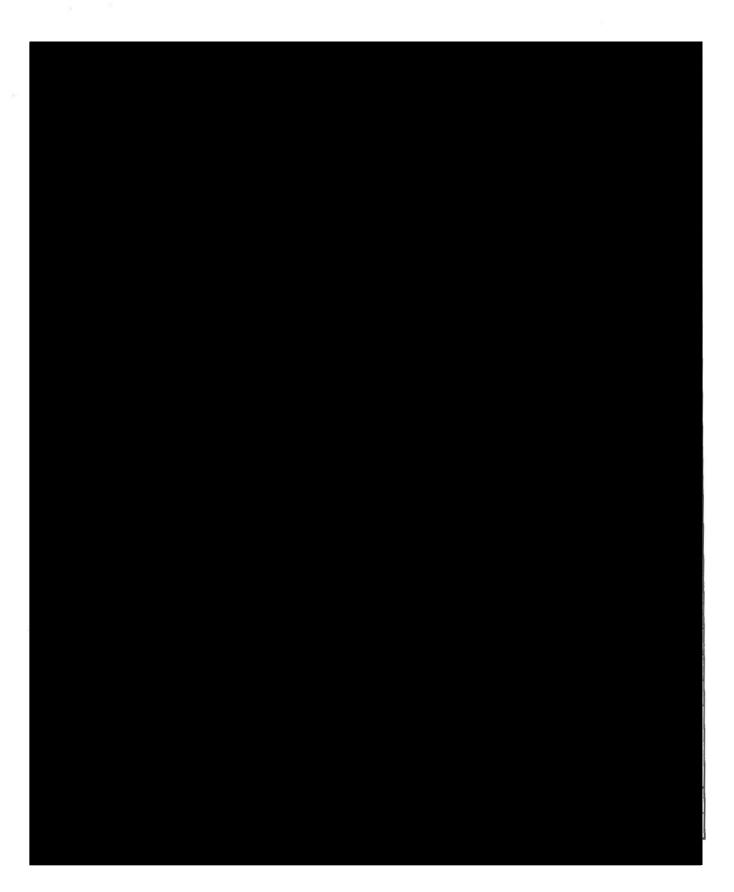
1265536

Can be obtained from Hamilton County Sheriff office 9 pages



Incident Number: 1265536





Incident Number: 126	5536			
STATEMENT OF (check one):	Employee ID:	Ex. 7C		
Reporting Officer	Victim [	Reportee	Incident Witness	Other Information
				-

Incident Number: 126556

Incident Number: 1255	5 3 6			
STATEMENT OF (check one):	Emp	ployee ID; Ex. 7c		
Reporting Officer	Victim 🗌	Reportee 🗌	Incident Witness	Other Information 🗌

OSHA

From:

05/2



#826 P.001/001



# **Hamilton County Coroner**

The Frank P. Cleveland, M.D. Institute of Forensic Medicine, Toxicology and Criminalistics 31 59 Eden Avenue, Cincinnati, Ohio 45219-2299

Office 513-946-8700 Fax 513-946-8727



Case No. CC16-01732

Deceased: Jolly, Jason Evertt

. . .

Sex: Male

Age: 38

Date of Death: 05/17/2016

Race: White

Diagnosis: Blunt impact injury to the dorsal torso (from tow strap hook breaking and striking him in the back):

Bilateral comminuted bilateral rib fractures:

Laceration of the left lung lower lobe

Left hemopneumothorax

Right hemothorax

Left more than right dorsal pulmonary contusions

Left more than right areas of pulmonary atelectasis

Bilateral decompressive intracath insertions

Bilateral lateral intercostal stab wounds

Subdural hemorrhage around the spinal cord, brain stem and in posterior fossa

Cerebral edema

Small partial thickness lacerations of the dorsal distal thoracic aorta

Extensive lacerations of the spleen and the quadrate lobe of the liver:

Retroperitoneal hemorrhage

Hemoperitoneum

Lingual bite mark contusions

Cutaneous abrasions at dorsal torso impact site with body wall contusion.

Left ventricular myocardial hypertrophy.

Obesity.

Mild cervical vertebral osteoarthritic changes.

#### Cause of Death:

A. Cause of Death: Multiple comminuted bilateral rib fractures with hemorrhage

B. Cause of Death: Blunt impact injury to the dorsal torso



Recovery \*perations Towing/Pulling Equipment

Created by: JHA Committee

Total Cycle Time:

Standardized Work Sheet and JHA

Plant: Spurlock

Approved by: Fred Cluxton

Date:

01/15/2016

Region: Eastern Area:

Checked by: Robbie Lawrence

PPE / Safety Protection:

Steel Toe Boots, Safety Glasses,

Leather Work Gloves, Hardhat

	Main Procedure	Detail Procedure (Analysis)	Hazards	Protective Measures
1	Inspect towing equipment	A supervisor will monitor any and all recovery operations  Prior to beginning any recovery of any mobile equipment the employee using the tow vehicle will inspect the tow equipment prior to use. Ensure the cable and any clevises are serviceable and rated for this operations.	Unsafe equipment Slips, Trips, Falls Eye Injury Struck by or against another piece of equipment Cuts and scrapes	Supervisor must be on location and at the site of all recovery operations  All cables, clevises, and towing points will be inspected for serviceability prior to recovery operations  Ensure that the towing equipment being used is serviceable and rated for recovery operations.  Do not use unserviceable equipment  Make sure the tow vehicle is of equal or larger size then the vehicle being towed  Clear surrounding area of other equipment when possible  Clear any individuals in the area  Wear all leather work gloves when handling wire rope (cables)
2	Move tow vehicle into place	Align the vehicle doing the towing directly in front of the towed vehicle when possible.	Struck by another piece of equipment	Keep windows clean and clear  Maintain awareness of your surroundings
		•	Crushed between equipment	at all times
		Move tow vehicle into place, ensure there is enough room between vehicles to connect tow cables.	Slips trips falls	
		F. Common Particular Common Co		

		Place transmission selector levers in neutral and engage the parking brakes on both vehicles.  Lower all attachments prior to working between the vehicles		Maintain CB communications with stuck of broken equipment  Never allow anyone to move or stand between vehicles while in motion  Dismount and mount equipment using three point of contact facing the equipment
3	Connecting cables between equipment	Secure cable to front of broken, and the rear of the recovery equipment using appropriate pulling/lifting points.	Cuts/ scrapes  Striking others with the loose end or the cable	Wear all leather gloves when handling cables  Be aware of your surroundings  Maintain control of cables while connecting the equipment
4	Towing/ pulling stuck or broken equipment	Raise all attachments off the ground, disengage parking brakes, begin moving the recovery equipment forward until the cable is tight  Keep recovery equipment directly in front of vehicle being towed when possible and continue towing until equipment is no longer stuck	Rear vehicle striking tow vehicle  Cable breaking  Hit by flying objects	Never jerk or snatch pulled equipment  Towed vehicle will assist by using low gear to aid in recovery as needed  Maintain CB communications between vehicles.  Maintain visual contact between vehicles  Once vehicle is unstuck allow tow vehicle to come to a complete stop and back up to release tension from cable
5	Disconnecting/ stowing cable	Ensure there is adequate slack in cable and enough room between vehicles to work safely.  Place transmission selector levers in neutral and engage the parking brakes on both vehicles.  Lower all attachments prior to working between the vehicles  Secure cable to front of broken and the rear of the recovery equipment	Struck by another piece of equipment  Crushed between equipment  Slips trips falls Cuts/ scrapes Striking others with the loose end or the cable and or chain	Maintain awareness of your surroundings at all times  Maintain CB communications with stuck of broken equipment  Never allow anyone to move between vehicles while in motion  Dismount and mount equipment using three point of contact facing the equipment

	using appropriate pulling/lifting points		(	Wear all leather glo cables	oves when handling	
				Maintain control of connecting the equ	cables and chains whi ipment	ile
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					5	
		Reviewed Reviewed Reviewed Reviewed Reviewed Reviewed	Revis Revis Revis Revis Revis	ed ed ed	JHA S.R	



# Training Documentation Form

Name of Training	Recovery Operations JHA	
Description of Class	Reviewed JHA	
Name of Instructor	Chester Applegate	

Employee ID: #7c; company object to release	se	

# HEADWATERS

#### Process Name:

Total Cycle Time:

Minutes

and Jak

1

Plant: Miami Fort

Approved by: Keith Carr

PPE / Safety

Hard Hats, safety

Protection:

glasses, hard toe boots, High Vis. Vest/Clothing

Region: Area:

HPS-North

Checked by: Created by:

Chester Applegate

Hazards

Jason Jolly

#### **Protective Measures**

Date: 9/25/2015

Operate Equipment as directed by supervisor

Main Procedure

Employee to comply with Headwaters Site Specific Safety Plan and Headwaters Corporate Health and Safety Standards.

Employees to complete task

training for each piece of

equipment they operate.

Detail Procedure (Analysis)

General Construction Hazards

(1) Wear PPE as required.

(2) Ensure employee(s) are qualified in the operation of each piece of equipment being used.

(3) Ensure a thorough pre-job brief or JSA is completed and understood prior to beginning work.

(4) Ensure a thorough hazard assessment of the work area is completed each day and that any hazards identified are eliminated or the risk of incident is reduced to a safe and acceptable level before work begins.

2 Pre-Operation Inspection of Equipment

Employee to complete a pre-

equipment when performing inspection and entering operators cab.

Slip, Trip and Fall hazards

when climbing on and off of

- (1) Use 3 point climbing method when ascending/descending equipment.
- (2) Use extreme caution when conditions are wet, icy or muddy and ensure good foot/hand placement.
- (3) If needed, clean debris off of foot/hand holds before climbing onto equipment.
- (4) Ensure windows are kept clean to maintain good visibility throughout the
- (5) Ensure equipment is cleaned out at least daily and remove any excess trash or debris that could lead to a housekeeping issue or safety hazard.
- (6) Secure any items such as hard hats, tools, lunch boxes, thermos, etc...so that loose items are not rolling around

operational inspection of each piece of equipment used. Utilizing the HPS Pre-Operation Inspection check sheet for mobile equipment.

Entering into operators cab.

				operator.
3	Pushing Ash or Spreading dirt with Bulldozer to grade	Ensure that operators are competent and have received task training on the specific equipment they will be operating.	<ol> <li>In congested areas of landfill or material dumping areas, the dozer could back into another piece of equipment.</li> <li>Working on steep slopes presents the hazard of a dozer sliding or overturning.</li> <li>Working in soft ash or non-compacted areas could lead to operator being bounced around in equipment.</li> </ol>	<ul> <li>(1) Equipment operators should always look behind them before backing up. Stay in communication with other operators in the vicinity and keep backup alarms in good working order.</li> <li>(2) Dozers should not operate sideways to the grade of slopes that are steeper than 2.5:1.</li> <li>(3) Ensure that dozer operator is wearing seatbelt and that ash is compacted frequently.</li> </ul>
3		Moving a lot of material	Could destabilize material. Uneven work area. Equipment could tip over while working	Do not overload blade. Work at safe speeds and slopes. Maintain smooth grade.
4				
5		Working in new work area	Could be many hazards including, but not limited to, Utility lines, Wells. Unstable ground, additional equipment.	<ol> <li>Complete a hazard assessment of the work area and correct any identified hazards before operating equipment.</li> <li>Consult with your supervisor and determine a plan of action to ensure safe operation of equipment.</li> </ol>
6		End of work shift	Damaged of defective parts or leaks	Clean off track areas with tack spade and inspect track assembly for wear, damage or leaks. Report any deficiencies to your supervisor.
7 8				
			Reviewed Reviewed	Revised S-16-16 By Revised Revised Revised Revised

in cab posing a hazard to the



Total Cycle Time:

Area:

Plant: Miami Fort

Approved by: Keith Carr

Date: 5/15/2016

Region: Eastern

Checked by:

PPE / Safety Jason Jolly

Steel Toe Boots,

Protection:

Safety Glasses,

Seatbelt

## Main Procedure

Pre Trip Inspection

#### Detail Procedure (Analysis)

Prior to starting the day all drivers/ operators will conduct and document a pre-trip inspection. All employees will annotate any deficiencies found prior to operations, if any safety faults are found, that equipment will not go into service until the fault is corrected.

#### Hazards

Created by: Chester Applegate

Unsafe equipment

Slips, Trips, Falls.

Eye Injury

Struck by or against another piece of equipment

#### **Protective Measures**

Prior to placing any mobile equipment into operation the operators will annotate any faults on the Headwaters Daily Inspection Sheet, and also place a mark next to all items.

Walk around all equipment prior to starting Clean steps and grab rails prior to mounting equipment

Place any loose items on floor board prior to climbing into equipment

Use three points of contact facing the equipment at all times

Always park equipment on level ground at the end of the day

Wear eye protection while performing pretrip inspection

Be aware of your surroundings at all times

Use flash lights during hours of limited visibility

2 Compacting Material

Ensure constant visibility is maintained with other equipment on the job site.

Struck by another piece of equipment

Equipment rollover

Keep windows clean and clear

Maintain awareness of your surroundings at all times

	Always operate compactor paralleled with trucks dumping and spreading material.  When working on slopes always work up and down slopes and never side slopes	Equipment break downs	Maintain CB communications with other equipment on the job site  Wear Seatbelt while operating  Maintain control of equipment at all times  Never jump from the machine while in
3			motion.
4			
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10			
			vised 5-16-14 for first



Total Cycle Time:

Plant: Miami Fort

Approved by: Keith Carr

5/15/2016 Date:

Region: Eastern

Checked by: Jason Jolly

PPE / Safety Steel Toe Boots. Safety Glasses. Protection:

Area:

Created by: Chester Applegate

Goggles, Hard

Hat

# Main Procedure Inspection/ Start Up

# **Detail Procedure (Analysis)** Prior to starting the day all drivers/ operators will conduct

and document a pre-trip inspection. All employees will annotate any deficiencies found prior to operations, if any safety faults are found, that equipment will not go into service until the fault is corrected.

Hazards

**Protective Measures** 

Unsafe equipment

Conduct Pre trip inspection

Slips, Trips, Falls.

Walk around all equipment prior to starting

Electrical Shock

Clean steps and grab rails prior to

mounting equipment

Eye Injury

Place any loose items on floor board prior

to climbing into equipment

Use three points of contact facing the

equipment

Always park equipment on level ground at

the end of the day

Wear eye protection while performing pre-

trip inspection

2 Moving equipment from park line

Prior to moving any equipment from the park line the operator will fasten the seat belt, turn on headlights, and sound horn prior to moving from the park line.

Hitting another piece of equipment

Ensure pathway is clear prior to starting and moving from parked area.

Turn on headlights, and sound horn prior to moving from the shop.

Hitting other personnel

Always sound horn when moving equipment in and around the parking area

Do not move equipment until others have cleared your path

prior to setting the throttle. However, when setting the throttle

NEVER SET THROTTLE ABOVE
1500 (RPM)

4 Filling the tank

Always center the tank with the down spout at the water point. Move truck forward until the left front tire begins to break over the concrete loading area.

Hitting another piece of equipment or personnel

Maintain constant communication with other operators

Slips, Trips, Falls

Be aware of your surroundings at all times

Maintain three point of contact when mounting and dismounting vehicle

Avoid standing water

Engage parking brake.

Step out of the vehicle and check to ensure down spout is directly over fill hole in the tank. If reposition truck under spout.

Move to and turn on the water to begin filling the tank. Once tank is full shut water valve off completely and depart loading area.

10

□ Reviewed
□ Revised

□ Revised
□ Revised

Date By 5/5/2016 Chester

Chester Applegate

## 3 Dispensing water

All roadways used are to be watered as needed throughout the day to prevent dusting. Any paved surfaces will be initially watered at the start of the shift and then washed throughout the day using the front sprayers only this reduces the volume of water left standing on the pavement and will also minimize dusting

The landfill will be watered constantly to prevent dusting and to aid with compaction.

#### DO NOT OVER WATER

When watering/ spot watering always engage and disengage the Power Take Off (PTO) with the sprayers left open. When tank is empty and at the end of the day, turn off all sprayers, and leave valves open

Never at any time will the sprayers be left on when passing other trucks/ equipment.

Maintain control at all times; of the equipment you operate.

Maintain a safe operating speed for the conditions. Follow all posted speed limits

Using the cannon or fire hose for cleaning vehicles and scales, is permitted. Always engage the (PTO)

# Weather

Objects and or wildlife on the haul road

Hitting another piece of equipment

Personnel on the jobsite

Equipment brake down

Distracted drivers

## Turn on Headlights

Operate per conditions slow down during adverse weather conditions, and during hours of limited visibility

Constantly communicate with each other on the changing conditions, or when visitors are on the jobsite

Be aware of your surroundings at all times

Be aware of plant personnel moving throughout the plant

Loaded trucks have priority on the jobsite

Wear seatbelts

Conduct/ document a good pre trip inspection

Move equipment off of the haul road as possible should a break down occur

Cell phones and other electrical devices are prohibited from use while operating Headwaters Mobile Equipment



1

Process Name:

Plant: Miami Fort Approved by: Keith Carr

Region: Area:

HPS-North

Checked by: Jason Jolly

Created by:

Chester Applegate

Total Cycle Time:

Minutes

Date:

5/15/2016

PPE / Safety Protection: Hard Hats, safety glasses, hard toe boots, High Vis. Vest/Clothing

Main Procedure

Operate Equipment as directed by supervisor

Detail Procedure (Analysis)

Employee to comply with Headwaters Site Specific Safety Plan and Headwaters Corporate Health and Safety Standards.

Employees to complete task training for each piece of equipment they operate.

Hazards

General Construction

Hazards

**Protective Measures** 

(1) Wear PPE as required.

(2) Ensure employee(s) are qualified in the operation of each piece of equipment used at the Edwards Power Station.

(3) Ensure a thorough pre-job brief or JSA is completed and understood prior to beginning work.

(4) Ensure a thorough hazard assessment of the work area is completed each day and that any hazards identified are eliminated or the risk of incident is reduced to a safe and acceptable level before work begins.

2 Pre-Operation Inspection of Equipment

Employee to complete a preoperational inspection of each piece of equipment used. Utilizing the HPS Pre-Operation Inspection check sheet for mobile equipment.

Entering into operators cab.

Slip, Trip and Fall hazards when climbing on and off of equipment when performing inspection and entering operators cab.

- (1) Use 3 point climbing method when ascending/descending equipment.
- (2) Use extreme caution when conditions are wet, icy or muddy and ensure good foot/hand placement.
- (3) If needed, clean debris off of foot/hand holds before climbing onto equipment.
- (4) Ensure windows are kept clean to maintain good visibility throughout the shift.
- (5) Ensure equipment is cleaned out at least daily and remove any excess trash or debris that could lead to a housekeeping issue or safety hazard.
- (6) Secure any items such as hard hats, tools, lunch boxes, thermos, etc. so that loose items are not rolling around in cab posing a hazard to the operator.

						r e
3	Conducting Hazard Assessment	Employee (Operator) Will walk around work area to assess soil stability and soft leading edges of pond to ensure any equipment and operators can safely perform the work.		Employee could slip and fall while assessing pond edge and work area. Walking on steep slopes presents the hazard of employee slipping and falling.	(2)	Employee should always be aware of their surroundings at all times and keep eyes on path of travel. Employees conducting the Hazard Assessment should always try to stay on level walking surface if possible to prevent slipping and falling. Employee conducting hazard assessment should place visible marked stakes in areas deemed unsafe to ensure Excavator Operator will know to stay clear of that area.
3		Maneuvering Equipment into position for loading trucks.		uld destabilize material.  use an uneven working	(1)	Keep Excavator on level grade while maneuvering into position. Stay clear of soft edges and unstable ground.
			are		(2)	Position Excavator so that tracks are pointing towards work being
			Equ	ipment could tip over		performed. Never position tracks Parallel to the working edge.
				terial could come through bottom of the cab.		Watch for changing conditions while operating.
					(4)	Never swing boom over the operators compartment of the trucks being loaded
4		Working in new work area	incl Util gro	uld be many hazards uding, but not limited to, ity lines, Wells. Unstable und, additional upment.		Complete a hazard assessment of the work area and correct any identified hazards before operating equipment. Consult with your supervisor and determine a plan of action to ensure safe operation of equipment.
5		End of work shift		maged of defective parts eaks	insp or le	an off track areas with track spade and pect track assembly for wear, damage eaks. Report any deficiencies to your ervisor.
				Reviewed	sed sed	Date 5/15/2016 Chester Applegate 5-16-16  January
JHA Exc	rvator Operation Miami Fort					Rev J/15/16



Plant: Miami Fort

Keith Carr Approved by:

Checked by:

Jason Jolly

5/15/2016 Date:

PPE / Safety Protection:

Total Cycle Time:

Hard Hat, Safety Glasses, Steel Toe Work Boots and Gloves

Minutes

Region:

HPS- North Area:

Created by: Chester Applegate

#### Main Procedure

Pre-operation Inspection

#### Detail Procedure (Analysis)

- (1) Check oil, coolant, hydraulic levels, tires, and general condition of the equipment.
- (2) Complete Pre-Operation Checklist before operating equipment and make notation of any deficiencies detected during inspection.

#### Hazards

- Fluid contacting the eyes or skin causing irritation.
- (2) Slips, Trips and Falls while climbing onto equipment.

#### Protective Measures

- Provide task training for drivers.
- (2) Follow AAA safety procedures: Assess the task for hazards. Anticipate how hazards can cause injury. Act to eliminate hazards.
- (3) Train employees on proper use of PPE.
- (4) Training and availability of SDS sheets.
- (5) Practice 3 point contact rule when climbing on and off of equipment.

2 Start up

Turn the key and start engine for warm up.

- (1) Tripping or slipping when entering or exiting the cab.
- (2) Possible electrical malfunction causing arc or fire.
- (1) Distractions could lead to driver losing focus and causing an accident.
- (2) Rough road conditions or terrain could cause driver to lose control of the truck.
- (3) Driving too fast could cause the driver to lose control and overturn a truck especially around curves.
- (4) Hauling a load on a slope while driving sideways to the grade of a slope could cause a loaded

- (1) Practice 3 point contact rule.
- (2) Perform and document pre-operation inspections of equipment. Perform preventative maintenance and make repairs as needed.
  - (1) Operators/Truck Drivers shall always follow Headwaters and Client Safety Policy and Procedures.

Operators of equipment shall not use cell phones, eat/drink while equipment/truck is in motion, or conduct any other type activity that could lead to a distraction and cause operator/driver to lose control of the equipment.

(2) Always conduct a hazard assessment of haul road to ensure it is safe to travel.

- Operation of Equipment
- (1) Hauling Ash on the landfill for disposal.
- (2) Hauling other material such as stone, soil and/or other materials around the site.

truck/vehicle. Check for leaks, low weather or ground when kneeling tire pressure, etc hazards. Could hit underneath truck head if checking Always wear th underneath truck for (2) Note any deficient	rame and dump otective measures in before beginning o not leave fueling d. No smoking or ueling process. ate PPE while DS Sheets) equipment or Truck. as if on uneven or er fuel tank of truck ended or excess I nozzle.
☐ Reviewed Revised ☐ Reviewed ☐ Revised	eend at the knees to check for leaks ck and tire condition. he appropriate PPE.
5-11-14 On lay	Ву

employees place a body part

- truck to overturn.
- (5) Not parking on level/stable ground when dumping load could cause the bed to shift and overturn the truck.
- (6) Driving with the bed raised after dumping load could cause the truck or truck bed to overturn.
- (7) Dump trucks dumping side by side pose the hazard of one truck overturning onto another truck.
- (8) Trucks dumping too close to the edge of a slope could lose traction and slide backwards or not be able to pull forward after dumping.
- (9) Cleaning/chipping ash to free tailgate latches could lead to serious injuries such as (Caught in or between/Struck-by Hazards.)
- (10)Performing repairs or general maintenance to dump trucks away from shop area can be risky if safety procedures are not in place. If truck bed is raised there is a risk of bed coming down on employee.

- (3) Truck Drivers shall always obey posted speed limits on haul road and operate at a safe speed conducive to the road conditions. Always maintain a safe distance between trucks when traveling haul road or while in landfill.
- (4) Loaded dump trucks should avoid slopes if possible or drive up or down the grade of a slope.
- (5) Always keep a line of communication open to ensure you are on level ground when dumping load.
- (6) Always lower bed immediately after pulling away from a dumped load.
- (7) Always maintain a safe distance of at least 40 feet between trucks when dumping side by side.
- (8) Trucks unloading close to the edge of a slope should keep their back axle on solid ground at all times.
- (9) Employees should always use caution whenever truck bed is raised and tailgate is open. Always stand to the side of the tailgate when chipping excess ash or material from pins and never place any body part between tailgate and dump body of truck unless tailgate jacks and dump body jacks are in place. If there is ash build up in the truck bed, make sure it is removed before placing any body part between tailgate and dump bed. Stuck ash could dislodge from bed, strike employee and cause serious injury.
- (10)Employees should always use blocking/jacks or other approved devices to secure truck bed in case of hydraulic failure. At no time shall



# Total Cycle Time:

Date:

Standard and JHA	A STATE OF		2500
and on A			

Plant: Spurlock Region: Eastern

Area:

Approved by: Fred Cluxton

Checked by: Robbie Lawrence

PPE / Safety

01/15/2016 Steel Toe Boots.

Protection:

Safety Glasses, Leather Work Gloves, Hardhat

Main Procedure Inspect towing equipment

Detail Procedure (Analysis) A supervisor will monitor any and all recovery operations

Prior to beginning any recovery of any mobile equipment the employee using the tow vehicle will inspect the tow equipment prior to use. Ensure the cable and any clevises are serviceable and rated for this operations.

Hazards

Created by: JHA Committee

Unsafe equipment

Slips, Trips, Falls

Eye Injury

Struck by or against another piece of equipment

Cuts and scrapes

Protective Measures

Supervisor must be on location and at the

site of all recovery operations

All cables, clevises, and towing points will be inspected for serviceability prior to recovery operations

Ensure that the towing equipment being used is serviceable and rated for recovery operations.

Do not use unserviceable equipment

Make sure the tow vehicle is of equal or larger size then the vehicle being towed

Clear surrounding area of other equipment when possible

Clear any individuals in the area

Wear all leather work gloves when handling wire rope (cables)

2 Move tow vehicle into place

Align the vehicle doing the towing directly in front of the towed vehicle when possible.

Move tow vehicle into place, ensure there is enough room between vehicles to connect tow cables.

Struck by another piece of equipment

Crushed between equipment

Slips trips falls

Keep windows clean and clear

Maintain awareness of your surroundings at all times

			Place transmission selector levers in neutral and engage the parking brakes on both vehicles.		Maintain CB communications with stuck of broken equipment
			Lower all attachments prior to working between the vehicles.		Never allow anyone to move or stand between vehicles while in motion
					Dismount and mount equipment using three point of contact facing the equipment
	3	Connecting cables between equipment	Secure cable to front of broken, and the rear of the recovery equipment using appropriate pulling/lifting points.	Cuts/ scrapes	Wear all leather gloves when handling cables
				Striking others with the loose end or the cable	Be aware of your surroundings
					Maintain control of cables while connecting the equipment
	4	Towing/ pulling stuck or broken equipment	Raise all attachments off the ground, disengage parking brakes, begin moving the recovery equipment forward until the cable is tight  Keep recovery equipment directly in front of vehicle being towed when possible and continue towing until equipment is no longer stuck.	Rear vehicle striking tow vehicle	Never jerk or snatch pulled equipment
				Cable breaking	Towed vehicle will assist by using low gear to aid in recovery as needed
				Hit by flying objects	Maintain CB communications between vehicles.
					Maintain visual contact between vehicles
					Once vehicle is unstuck allow tow vehicle to come to a complete stop and back up to release tension from cable
	5	Disconnecting/ stowing cable	Ensure there is adequate slack in cable and enough room between vehicles to work safely.	Struck by another piece of equipment	Maintain awareness of your surroundings at all times
			Place transmission selector levers in neutral and engage the parking brakes on both vehicles. Lower all attachments prior to working between the vehicles	Crushed between equipment	Maintain CB communications with stuck of broken equipment
				Slips trips falls Cuts/ scrapes Striking others with the loose end or the cable and or chain	Never allow anyone to move between vehicles while in motion
			Secure cable to front of broken and the rear of the recovery equipment		Dismount and mount equipment using three point of contact facing the equipment

Maintain control of cables and chains while connecting the equipment

6

7

8

9

10

Date

Reviewed Revised 1/28/2016

Reviewed Revised Revised

Reviewed Revised

Reviewed Revised

Reviewed Revised

Reviewed Revised

JHA S.R



Health and Safety Standard	13.8 Safety Standards & Controls – Mobile Equipment Operations					
Effective Date of Standard April 1, 2010	Supersedes Standard Dated January 1, 2006	Page 1 of 6				
Michael Hampton, Director Regulatory Compliance  Bill Gehrmann, President, Heddwaters Resources Incorporated						
Jack Lawless, President, Herdwaters Construction Mate	erials Incorporated					

A. POLICY

The use of mobile equipment is essential to the successful operation of Headwaters facilities. It is important that Headwaters management and employees understand that along with the benefits of using these tools comes the potential for accidents, many of which can be serious. Headwaters is committed to operating mobile equipment in compliance with regulatory standards and therefore adopts and publishes this operating standard.

#### B. SCOPE

The requirements found in this standard apply to mobile equipment owned or controlled by Headwaters Incorporated.

**Note**: The requirements found in this standard are not inclusive of all applicable regulatory safety standards. Management should strive to maintain a good working knowledge of additional standards.

## C. RESPONSIBILITIES

- 1. Facility Managers / Supervisors
  - Enforce this standard and hold operators of such equipment accountable for its requirements.
  - Monitor equipment used in the workplace for unsafe conditions or operating practices.
  - c. Train and qualify employees in accordance with this standard.
  - d. Follow up on identified equipment deficiencies in a timely manner.
  - e. Remove potentially unsafe equipment from operations.
  - f. Take necessary corrective action and discipline when warranted by operator actions and performance.

## 2. Employees

- a. Operate equipment only when trained and authorized to do so.
- b. Perform the required pre-operational inspections as identified in this standard.
- c. Operate equipment in a safe and responsible manner.
- d. Remove potentially unsafe equipment from service in a timely manner.
- e. Report unsafe operating practices or abuse to supervision when observed.

## D. DEFINITIONS

- 1. Mobile Equipment Motorized machinery used away from public roadways (off-road) to move or transport material or product. Examples of mobile equipment would include haul trucks, dump trucks, skid steer loaders, front end loaders, dozers, and excavators.
- 2. Powered Industrial Truck A motorized piece of material handling equipment such as a tow motor, order picker, motorized pallet jack, or forklift.
- 3. ROPS Roll Over Protective Structure
- 4. FOPS Falling Object Protective Structure

# E. REQUIREMENTS

- 1. General Requirements
  - a. The use of any piece of mobile equipment not in compliance with MSHA or OSHA regulations is prohibited. The noncompliant equipment must be identified as unsafe by tagging or locking the controls or be physically removed from the jobsite.
  - b. Employee qualification will be documented in an acceptable manner as deemed appropriate by facility management. A recommended training and qualification system is attached in Appendix A of this standard.
  - c. Operations under the jurisdiction of the Mine Safety & Health Administration will document employee training on the MSHA form 5000-23 and file according to MSHA regulations.
  - d. All mobile equipment will be equipped with seat belts meeting Society of Automotive Engineers standards. Seat belts <u>need not</u> be provided when:
    - i. Equipment is designed only for standup operation.
    - ii. For mobile equipment which does not have roll-over protective structure (ROPS) or adequate canopy protection.
  - e. Only employees qualified by training or experience will operate mobile equipment.

#### 2. Mobile Equipment

- a. Whenever equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set.
- b. All operator compartment glass shall be safety glass, or equivalent, that introduces no visible distortion affecting safe operation.
- c. Mobile equipment in use shall be inspected at the beginning of each shift to ensure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use:
  - All brake systems (parking, emergency, service)
  - Tires
  - Horn and/or reverse warning device
  - Steering mechanism
  - Coupling devices (as required)

- Seat belts
- Operating controls
- Lights & Reflectors (as required)
- Windshield wipers (as required)
- Defrosters (as required)
- Safety devices (fire extinguisher, fire suppression system, etc.)
- d. All defects affecting the safe use of the equipment shall be corrected before the equipment is placed in service. All pre-operational inspections shall be documented and records of inspection shall be kept for a minimum of 12 months or longer as required by applicable standards.
- e. Pneumatic-tired earth-moving haulage equipment (trucks, scrapers, tractors, and trailing units) whose maximum speed exceeds 15 miles per hour shall be equipped with fenders on all wheels.
- f. All bidirectional machines, such as rollers, compacters, front-end loaders, bulldozers, and similar equipment, shall be equipped with a horn, distinguishable from the surrounding noise level, which shall be operated as needed when the machine is moving in either direction.
- g. Mobile equipment with an obstructed view to the rear must be equipped with a reverse signal alarm distinguishable from the surrounding noise level. In lieu of an alarm, a spotter shall be used when backing.
- h. Steering or spinner knobs shall not be attached to the steering wheel unless the steering mechanism is of a type that prevents road reactions from causing the steering hand wheel to spin. The steering knob shall be mounted within the periphery of the wheel.
- i. Whenever visibility conditions warrant additional light, mobile equipment shall be equipped with at least two headlights and two taillights in operable condition.
- j. Mobile equipment operated on a public roadway must meet all Department of Transportation requirements as they apply.

#### 3. Powered Industrial Trucks

- a. Only trained and qualified individuals will operate an industrial truck. Powered industrial truck operator training shall meet the requirements found in 29 CFR 1910.178.
- b. Industrial trucks used to lift loads or personnel will have the rated capacity clearly posted on the vehicle so as to be clearly visible to the operator.
- c. No modifications or additions which affect the capacity or safe operation of the equipment shall be made without the manufacturer's written approval.
- d. Steering or spinner knobs shall not be attached to the steering wheel unless the steering mechanism is of a type that prevents road reactions from causing the steering hand wheel to spin. The steering knob shall be mounted within the periphery of the wheel.
- e. Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.
- f. Forklifts may be used to lift personnel only when the following precautions are taken:
  - i. Use of a safety platform firmly secured to the lifting carriage and/or forks.
  - ii. Means shall be provided whereby personnel on the platform can shut off power to the truck.

iii. Overhead protection from falling objects as indicated necessary by the operating conditions shall be provided.

# 4. Maintenance Procedures

- a. A safety tire rack, cage, or equivalent protection shall be provided and used when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices.
- b. Wheels of mobile equipment or motor vehicles shall be chocked prior to beginning maintenance operations.
- c. Mobile equipment, or parts thereof, which are suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them. Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment, shall be either fully lowered or blocked when being repaired or when not in use. All controls shall be in a neutral position, with the motors stopped and brakes set, unless work being performed requires otherwise.

# F. REFERENCES

- 1. 29 CFR 1926, Subpart O, Motor Vehicles, Mechanized Equipment, and Marine Operations, Occupational Safety & Health Administration
- 2. 29 CFR 1910, Subpart N, Materials Handling & Storage, Occupational Safety & Health Administration
- 3. 30 CFR 77, Subpart E, Safeguards of Mechanical Equipment, Mine Safety & Health Administration
- 4. 30 CFR 77, Subpart Q, Loading and Haulage, Mine Safety and Health Administration

## G. ATTACHMENTS

1. Appendix A – Headwaters Mobile & Fixed System Equipment Training Record

# AFFIDAVIT OF MARK RYAN

) )SS:

State of Kentucky

My County of Residence:

County of

Before me, the undersigned notary public, this day, personally, appeared Mark Ryan, to me known, who being duly sworn according to law, deposes and states the following:
1. I am an Area Operations Manager for Headwaters Resources, Inc. and I supervise and oversee territories for Headwaters Resources, Inc. and Headwaters Plant Services in parts of Michigan, Ohio, and Indiana.
<ol> <li>During September 2015, Headwaters issued a bulletin/alert and discussed the recommendation to tow and recovery heavy equipment by using only steel cable and this issue was also discussed during a monthly safety call with management.</li> </ol>
3. JHA's are implemented on a site-by-site basis. For example, if employees at a particular site do not operate heavy equipment, then JHA's for operating heavy equipment will not apply.
4. During winter 2015, Jason Jolly was working on a long-term assignment in Michigan under my direct supervision and control.
5. In Michigan, Headwaters' employees monitor union labor but do not operate heavy equipment and a towing/recovery JHA was not implemented.
6. On October 19, 2015, however, I personally discussed and communicated the substance of the Spurlock JHA to Jason Jolly because I knew that he was an equipment operator who would eventually return to the Spurlock facility.
7. Specifically, Jason Jolly was informed that the Spurlock JHA called for the use of steel cable, with an appropriate load rating, to tow and recover heavy equipment.
FURTHER AFFIANT SAYETH NAUGHT.
MARK RYAN
Subscribed and sworn to before me this 1 <sup>st</sup> day of June, 2016 by Mark Ryan.

Notary Public

# Appendix A

# Headwaters Incorporated Mobile & Fixed System Equipment Training Record



# Mobile & Fixed System Equipment Training Record

En	nployee (Candidate):	Facility:	
Eq	uipment Type:	Equipment Model:	
Ma	ark as each step is completed to t	the satisfaction of the Supervisor or Qualified Operator/Train	ier.
1.		has received classroom training in how to properly operate the de ideos, operating manuals, and question/answer.	esignated
	Qualified Operator Trainer: _	Date;	
2.	Field Discussion. Review of equ	sipment or operation outside the classroom environment.	
	Qualified Operator Trainer: _	Date:	
3.	Observation Learning. Employ ready and capable to safely operations.	ree observes a qualified operator until it is determined that candidate the equipment.	ate is
	Qualified Operator Trainer	Date:	
4.	Observed Operation. Candidate normal operating mode with qual	e operates equipment in a reduced hazard/risk environment and m lified operator observing.	noves into
	Qualified Operator Trainer: _	Date:	
5.	<u>Unassisted Operation</u> . Candidate from a qualified operator or super	ate operates equipment in a normal work environment without assistation.	istance
	Qualified Operator Trainer	Date:	
		been trained and determined competent to operate the equipment or's signature below confirms this training and authorizes the nament.	
	Supervisors Signature:	Date:	

#### U.S. Department of Labor

# Occupational Safety and Health Administration

Cincinnati Area Office 36 Triangle Park Drive Cincinnati, OH 45246

Phone: (513) 841-4132 Fax: (513) 841-4114

http://www.osha.gov

Not part of case file; Ex. 7A

June 3, 2016

Representative:

Inspection Number:	1091793	
Date of Posting:		
Date of Service on		
Employee		

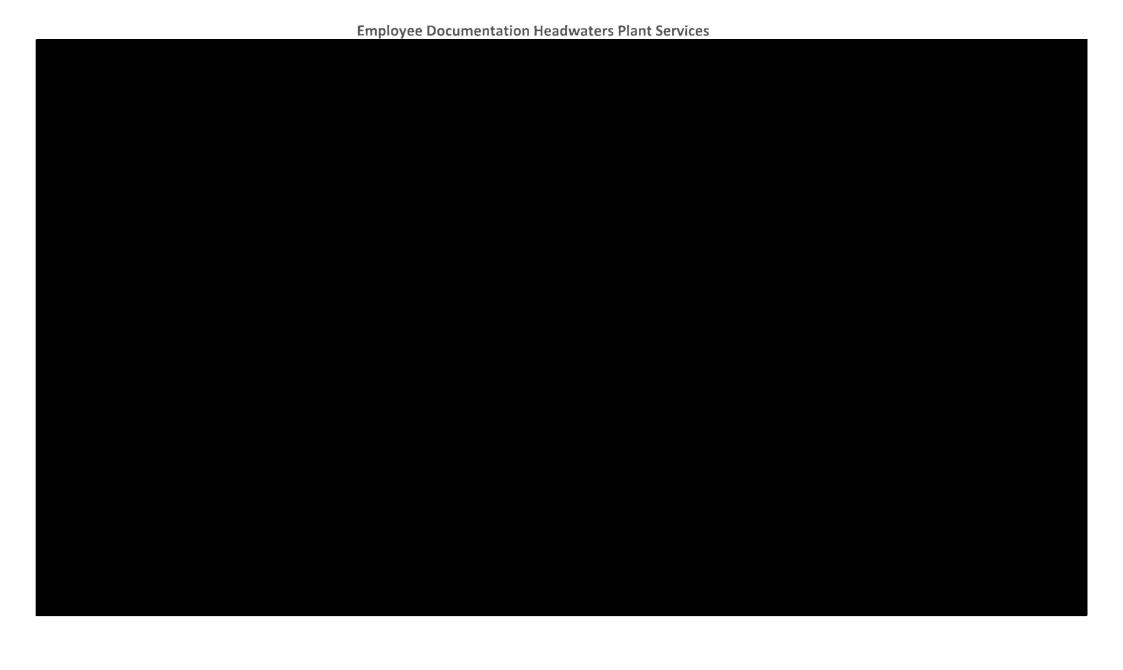


**Employee Documentation Headwaters Plant Services** Employee training record Ex. #7c 9 pages











- · Alternator, 60 Ampere 24V Auto-decel
- · Automatic engine warm-up system
- Batteries, 126 Ah/2 x 12V
- Boom holding valve
- ROPS cab (ISO 12117-2)
- Corrosion resistor
- Counterweight
- · Dry type air cleaner double element
- · Electric horn
- Engine Komatsu SAA6D114E-3 · Engine overheat prevention system
- · Fan guard structure



#### OPTIONAL EQUIPMENT

- · Additional filter system for poor-quality fuel
- · Air conditioner with defroster · Arm, 3185 mm 10'5" arm assembly, heavy-
- · Batteries, 140 Ah/2 x 12 V Bott-on top guard (Operator ProtectiveGuards level 2 (OPGI)
- Boom, 6470 mm 21'3", heavy-duty

#### SPECIAL PURPOSE BUCKET

- · Ripper bucket for hard and rock ground -Capacity SAE heaped 0.9 m31 18 yd3
  - CECE heaped 0.8 m3 1 05 yd3 Width 1200 mm 47.2"

- Hydraulic track adjusters (each side)
- · Long lubricating intervals for implement bushings
- · Multi-function color monitor
- · Power maximizing system
- · PPC hydraulic control system
- · Radiator & oil cooler dust proof net
- · Rear reflector
- Rear view mirror, RH, LH, rear sidewise
- · Seat belt, retractable
- Starting motor, 7.5 kW/24 v x 1
- Suction fan

· Cab accessories

-Rain visor

-Sun visor

· Cab front guard

-Full height guard

-Half height quard

· Heater with defroster

· Cab with 2-piece pull up front window

- · Track roller guards (full length)
- · Track roller
- -PC350-8 7 each side -PC350LC-8, 8 each side
- · Track shoe
- -PC350-8, 600 mm 24" triple grouser
- -PC350LC-8, 600 mm 24" triple grouser
- Travel alarm
- . Two-mode settings for boom
- . Working light, 2 (boom and RH)
- · Working mode selection system
- Rear view monitoring system. Seat, suspension
- Seat, suspension with heater
- Service valve Track frame
- undercove
- Working lights, 2 on

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CEN00222-03

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Printed in Japan 201201 IP.As

# **KOMATSU®**

PC350-8 PC350LC-8 PC350LC-8: 33660-3404 74210-75.040

ecot3



Photo may include optional equipment.

HORSEPOWEF

OPERATING WEIGHT

Net: 184 kW 246 HP @ 1950 rpm

PC350-8: 32600-32960 kg 71,870-72,660 lb

Gross: 194 kW 260 HP @ 1950 rpm

Equip. Serial # - A10043

**XCAVATOR** 

UEAM007002

# Operation & Maintenance Manual

# PC350LC-8 PC350NLC-8

# HYDRAULIC EXCAVATOR

#### SERIAL NUMBER

PC350LC-8

- K50001 and up

PC350NLC-8

- K50001 and up

PC350LCD-8

- K50001 and up

PC350NLCD-8

- K50001 and up



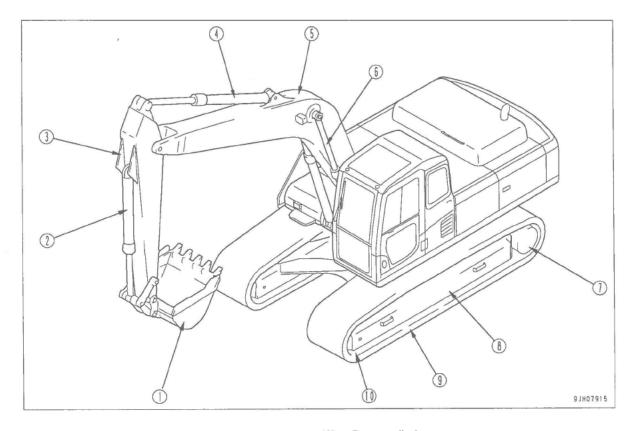
#### WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept inside the cab for reference and periodically reviewed by all personel who will come into contact with the machine.



# **MACHINE VIEW ILLUSTRATIONS**

### **OVERALL MACHINE VIEW**



- (1) Bucket
- (2) Bucket cylinder
- (3) Arm
- (4) Arm cylinder
- (5) Boom

- (6) Boom cylinder
- (7) Sprocket
- (8) Track frame
- (9) Track shoe
- (10) Idler

### SAFETY INFORMATION

To enable you to use this machine safely, safety precautions and labels are given in this manual and affixed to the machine to give explanations of situations involving potential hazards and of the methods of avoiding such situations.

#### Signal words

The following signal words are used to inform you that there is a potential hazardous situation that may lead to personal injury or damage.

In this manual and on machine labels, the following signal words are used to express the potential level of hazard.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. This word is used also to alert against unsafe practices that may cause property damage.

Example of safety message using signal word

# **M** WARNING

When standing up from the operator's seat, always place the lock lever in the LOCK position. If you accidentally touch the control levers when they are not locked, this may cause a serious injury or death.

#### Other signal words

In addition to the above, the following signal words are used to indicate precautions that should be followed to protect the machine or to give information that is useful to know.

NOTICE

This word is used for precautions that must be taken to avoid actions which could shorten

the life of the machine.

REMARKS

This word is used for information that is useful to know.

SAFETY INFORMATION FOREWORD

#### Safety labels

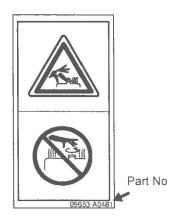
Safety labels are affixed to the machine to inform the operator or maintenance worker on the spot when carrying out operation or maintenance of the machine that may involve hazard.

This machine uses "Safety labels using words" and "Safety labels using pictograms" to indicate safety procedures.

#### Safety labels using pictogram

Safety pictograms use a picture to express a level of hazardous condition equivalent to the signal word. These safety pictograms use pictures in order to let the operator or maintenance worker understand the level and type of hazardous condition at all times.

Safety pictograms show the type of hazardous condition at the top or left side, and the method of avoiding the hazardous condition at the bottom or right side. In addition, the type of hazardous condition is displayed inside a triangle and the method of avoiding the hazardous condition is shown inside a circle.



Komatsu cannot predict every circumstance that might involve a potential hazard in operation and maintenance. Therefore, the safety messages in this manual and on the machine may not include all possible safety precautions.

If any procedures or actions not specifically recommended or allowed in this manual are used, it is your responsibility to take the necessary steps to ensure safety.

In no event should you engage in prohibited uses or actions described in this manual.

The explanations, values, and illustrations in this manual were prepared based on the latest information available at that time. Continuing improvements in the design of this machine can lead to changes in detail which may not be reflected in this manual. Consult Komatsu or your Komatsu distributor for the latest available information of your machine or for questions regarding information in this manual.

The numbers in circles in the illustrations correspond to the numbers in ( ) in the text. (For example:  $\bigcirc$   $\rightarrow$  (1))

#### ATTACHMENT INSTALLATION

- When installing optional parts or attachments, there may be problems with safety or legal restrictions. Therefore contact your Komatsu distributor for advice.
- Any injuries, accidents, or product failures resulting from the use of unauthorized attachments or parts will not be the responsibility of Komatsu.
- When installing and using optional attachments, read the instruction manual for the attachment, and the general information related to attachments in this manual.

#### ATTACHMENT COMBINATIONS

Depending on the type or combination of work equipment, there is a hazard that the work equipment may hit the cab or other parts of the machine. Before using unfamiliar work equipment, check if there is any hazard of interference, and operate with caution.

#### CAB WINDOW GLASSES

- If a pane of the cab window on the work equipment side is broken, the work equipment may directly hit the
  operator. In that case, stop the machine immediately and replace the broken pane with new one.
- The ceiling window is made of organic glass (polycarbonate), and as such it is apt to break easily when receiving damage on the surface, thereby deteriorating its protective characteristic. If there is a crack or damage caused by a fallen rock, or when any sign of them is noticed, replace it with a new window.

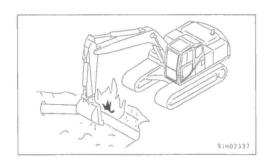
#### UNAUTHORIZED MODIFICATIONS

If this machine is modified without permission from Komatsu, there is danger that problems may occur with safety and that this may lead to serious personal injury. Modifications may have an adverse effect on items such as machine strength and visibility. Before making any modifications, please consult your Komatsu distributor. Komatsu cannot take any responsibility for accidents, failures, or damage caused by modifications not authorized by Komatsu.

#### SAFETY AT JOBSITE

Before starting operations, thoroughly check the area for any unusual conditions that could be dangerous.

- When carrying out operations near combustible materials such as thatched roofs, dry leaves or dry grass, there is a hazard of fire, so be careful when operating.
- Check the terrain and condition of the ground at the worksite, and determine the safest method of operation.
   Do not operate where there is a hazard of landslides or falling rocks.
- If water lines, gas lines, or high-voltage electrical lines may be buried under the worksite, contact each utility and identify their locations. Be careful not to sever or damage any of these lines.
- Take action to prevent unauthorized people from approaching the jobsite.
  - When working on public roads, position flagmen and erect barriers to ensure the safety of passing traffic and pedestrians.
- When traveling or operating in shallow water or on soft ground, check the shape and condition of the bedrock, and the depth and speed of flow of the water before starting operations.



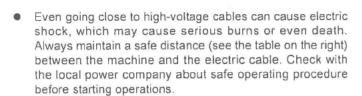
#### WORKING ON LOOSE GROUND

- Avoid traveling or operating your machine too close to the edge of cliffs, overhangs, and deep ditches. The ground may be weak in such areas. If the ground should collapse under the weight or vibration of the machine, there is a hazard that the machine may fall or tip over. Remember that the soil after heavy rain or blasting or after earthquakes is weak in these areas.
- When working on embankments or near excavated ditches, there is a hazard that the weight and vibration of
  the machine will cause the soil to collapse. Before starting operations, take steps to ensure that the ground is
  safe and to prevent the machine from rolling over or falling.

#### DISTANCE TO HIGH VOLTAGE CABLES

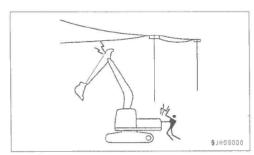
Do not travel or operate the machine near electric cables. There is a hazard of electric shock, which may cause serious injury or property damage. On jobsites where the machine may go close to electric cables, always do as follows.

 Before starting work near electric cables, inform the local power company of the work to be performed, and ask them to take the necessary action.



- To prepare for any possible emergencies, wear rubber shoes and gloves. Lay a rubber sheet on top of the seat, and be careful not to touch the chassis with any exposed part of your body.
- Use a signalman to give warning if the machine approaches too close to the electric cables.
- When carrying out operations near high voltage cables, do not let anyone near the machine.
- If the machine should come too close or touch the electric cable, to prevent electric shock, the operator should not leave the operator's compartment until it has been confirmed that the electricity has been shut off.

Also, do not let anyone near the machine.



Voltage of Cables	Safety Distance
100 V - 200 V	Over 2 m
6,600 V	Over 2 m
22,000 V	Over 3 m
66,000 V	Over 4 m
154,000 V	Over 5 m
187,000 V	Over 6 m
275,000 V	Over 7 m
500,000 V	Over 11 m

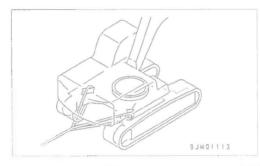
#### **TOWING**

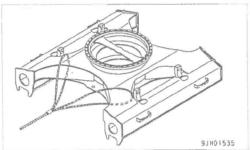
#### SAFETY RULES FOR TOWING

Serious injury or death could result if a disabled machine is towed incorrectly or if there is a mistake in the selection or inspection of the wire rope.

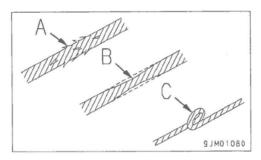
For towing, see "TOWING THE MACHINE (3-203)".

- Always check that the wire rope used for towing has ample strength for the weight of the machine being towed.
- Always wear leather gloves when handling wire rope.
- Never tow a machine on a slope.





 Never use a wire rope which has cut strands (A), reduced diameter (B), or kinks (C). There is danger that the rope may break during the towing operation.

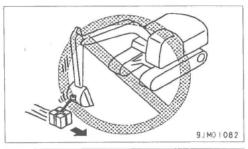


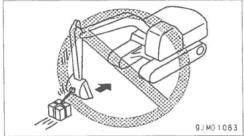
- During the towing operation, never stand between the towing machine and the machine being towed.
- Operate the machine slowly and be careful not to apply any sudden load to the wire rope.

#### LIFTING OBJECTS WITH BUCKET

#### SAFETY RULES FOR LIFTING OBJECTS

- Determine the signals to be used and place a signalman in position.
- To prevent the machine from tipping over or falling, carry out the operation on flat ground.
- To prevent the danger of contact with a raised load or the danger from a falling load, do not allow any worker inside the area.
- It is dangerous if the raised load hits any person or structure. When swinging or operating the work equipment, check carefully that the surrounding area is safe.
- Do not swing or operate the work equipment suddenly. There is danger that this may cause the load to sway and the machine to tip over.
- Do not leave the operator's seat when there is a raised load.
- Do not use the work equipment or swing to pull the load in any direction. There is danger that the hook may break and the load come off, causing the work equipment to move suddenly and cause personal injury.

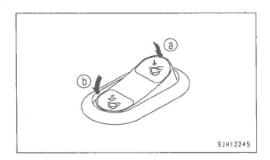




#### **ESCAPE FROM MUD**

Always operate carefully to avoid getting stuck in mud. If the machine does get stuck in mud, do as follows to get the machine out.

 Place the machine push-up switch at high-pressure set position (b). This will increase the pushing power of the boom and make it easier to escape.



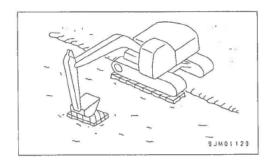
#### Track on One Side Stuck

#### NOTICE

When using the boom or arm to raise the machine, always have the bottom of the bucket in contact with the ground. The angle between the boom and arm should be 90° to 110°.

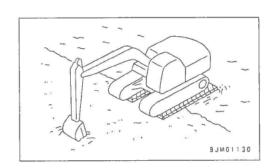
The same applies when using the bucket installed in the reverse direction.

When only one side is stuck in mud, use the bucket to raise the track, then lay boards or logs and drive the machine out.



#### Tracks on Both Sides Stuck

When the tracks on both sides are stuck in mud and they slip, making it impossible for the machine to move, lay boards or logs as explained above, and dig the bucket into the ground in front. Then pull in the arm as in normal digging operations and put the travel levers in the FORWARD position to pull the machine out.



#### RECOMMENDED APPLICATIONS

In addition to the following, it is possible to further increase the range of applications by using various attachments.

#### Backhoe Work

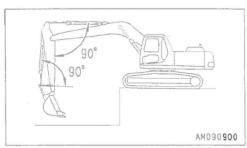
A backhoe is suitable for excavating areas that are lower than the machine.

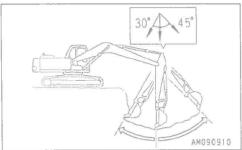
When the condition of the machine is as shown in the diagram on the right (angle between [bucket cylinder and link] and [arm cylinder and arm] is 90°), the maximum excavation force is obtained from the pushing force of each cylinder.

When excavating, use this angle effectively to optimize your working efficiency.

The range for excavating with the arm is from a 45° angle away from the machine to a 30° angle towards the machine.

There may be some differences depending on the excavation depth, but try to stay within the above range rather than operating the cylinder to the end of its stroke.



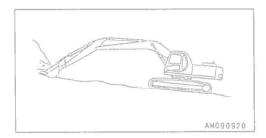


#### Shovel Work

#### NOTICE

The rock bucket (PC300: if equipped, PC350: standard) interferes with the arm, so it cannot be turned and used for shovel operations.

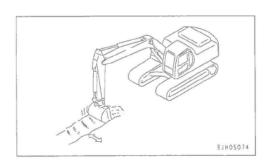
A shovel is suitable for excavating at a position higher than the machine. Shovel work is performed by attaching the bucket in the reverse direction.



#### **Ditching Work**

Ditching work can be performed efficiently by attaching a bucket which matches the digging operation and then setting the tracks parallel to the line of the ditch to be excavated.

To excavate a wide ditch, first dig both sides and then finally remove the center portion.



#### LIFTING MACHINE

# **M** WARNING

The operator carrying out the lifting operation using a crane must be a properly qualified crane operator. Never raise the machine with any worker on it.

Always make sure that the wire rope is of ample strength for the weight of this machine.

When lifting, keep the machine horizontal.

When carrying out lifting operations, set the lock lever to the LOCK position to prevent the machine from moving unexpectedly.

Never enter the area under or around a raised machine.

Never try to lift the machine in any posture other than the posture given in the procedure below or using lifting equipment other than in the procedure below.

There is a hazard that the machine may lose its balance.

#### NOTICE

This method of lifting applies to the standard specification machine.

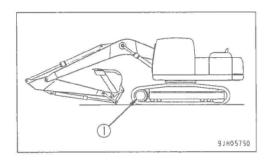
The method of lifting differs according to the attachments and options installed.

For details of the procedure for machines that are not the standard specification, please consult your Komatsu distributor.

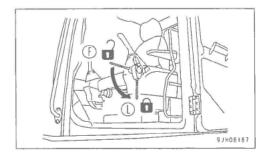
For weight, see "SPECIFICATIONS (5-2)".

When lifting the machine, carry out the operation on flat ground as follows.

- Start the engine, then the swing the upper structure so that the work equipment will be on the side of sprocket (1).
- Extend the bucket cylinder and arm cylinder fully, then lower the work equipment to the ground as shown in the diagram on the right using the boom cylinder.



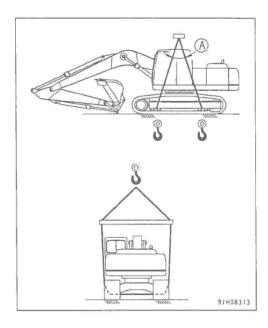
3. Set the lock lever securely to the LOCK position (L).



4. Stop the engine, check that there is nothing around the operator's compartment, then get off the machine.

Close the cab door and front glass securely.

- Pass wire ropes between the 1st and 2nd track rollers from the front and between the 1st and 2nd track rollers from the rear.
  - However, for machines equipped with a full roller guard for the track roller, pass the wire rope under the track.
- 6. Set the lifting angle (A) of the wire rope to 30° to 40°, then lift the machine slowly.
- 7. After the machine comes off the ground, check the hook condition and the lifting posture, and then lift slowly.



#### TOWING THE MACHINE

## **MARNING**

Serious injury or death could result if a disabled machine is towed incorrectly or if there is a mistake in the selection or inspection of the wire rope.

Always check that the wire rope used for towing has ample strength for the weight of the machine being towed.

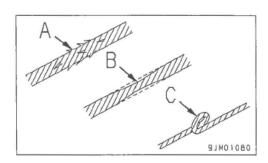
Never use a wire rope which has cut strands (A), reduced diameter (B), or kinks (C). There is danger that the rope may break during the towing operation.

Always wear leather gloves when handling wire rope.

Never tow a machine on a slope.

During the towing operation, never stand between the towing machine and the machine being towed.

Operate the machine slowly and be careful not to apply any sudden load to the wire rope.

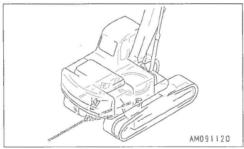


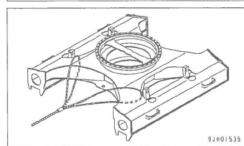
#### NOTICE

The maximum towing capacity for this machine is 197,100 N (20,100 kgf). Always carry out towing operations within the maximum towing capacity.

- If the machine sinks in mud and cannot get out under its own power, or if the drawbar pull of the excavator is being used to tow a heavy object, use a wire rope as shown in the diagram on the right.
- Place pieces of wood between wire ropes and body to prevent damage to ropes and body.
- Hold the wire rope level and direct it straight to the track frame.
- When towing a machine, travel at a speed of less than 1 km/h for a distance of only a few meters to a place that is suitable for carrying out repairs.

This is for use only in emergencies.





**OPERATION** 

#### LIGHTWEIGHT TOWING HOLE

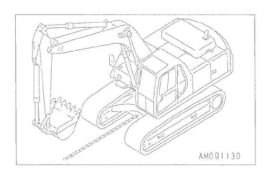
# **WARNING**

- The shackle must always be used.
- Hold the wire rope level and direct it straight to the track frame.
- Move the machine slowly and be careful not to apply any sudden load to the wire rope.

There is a hole in the track frame to fit the shackle when towing light objects.

Permissible towing load:

Max. 108,000 N (11,000 kgf)



#### SEVERE JOB CONDITION

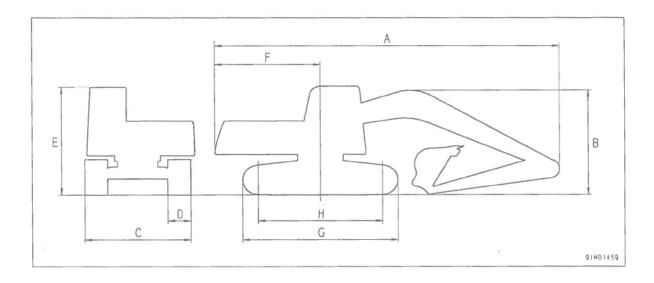
- When carrying out digging operations in water, if the work equipment mounting pin goes into the water, carry
  out greasing every time the operation is carried out.
- For heavy-duty operations and deep digging, carry out greasing of the work equipment mounting pins every time before operation.

After greasing, operate the boom, arm and bucket several times, then grease again.

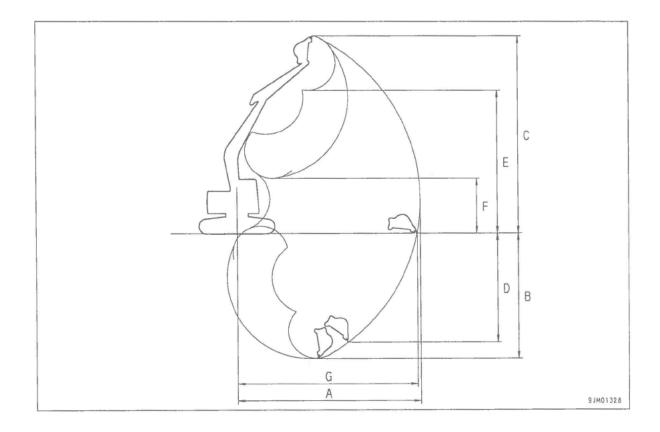
# **SPECIFICATIONS**

# **SPECIFICATIONS**

Item	Unit	PC350LC-8	PC350NLC-8					
Operating weight	kg	34,800	34,310					
Bucket capacity	m <sup>3</sup>	1.4						
Name of engine		KOMATSU SAA6D	114E-3 diesel engine					
Engine horsepower	kW (HP) /rpm	184 (247) /1,900						
A Overall length	mm	11,140	11,140					
B Overall height	mm	3,285	3,285					
C Overall width	mm	3,290	2,990					
D Track width	mm	700	600					
E Height of cab	mm	3,100	3,100					
F Radius of upper structure	mm	3,450	3,450					
G Length of track	mm	4,955	4,955					
H Tumbler center distance	mm	4.030	4,030					
Min. ground clearance	mm	498	498					
Travel speed (Lo/Mi/Hi)	km/h	3.2/4	4.5/5.5					
Swing speed	rpm	rpm 9.5						



	Working ranges	Unit	PC350LC-8	PC350NLC-8
Α	Max. digging reach	mm	11,100	11,100
В	Max. digging depth	mm	7,380	7,380
C	Max. digging height	mm	10,100	10,100
D	Max. vertical wall digging depth	mm	6,400	6,400
E	Max. dumping height	mm	7,050	7,050
F	Min. dumping height	mm	2,640	2,640
G	Max. digging reached at ground level	mm	10,920	10,920



#### **EXPLANATION OF LIFTING CAPACITY CHART**

#### PC350LC-8, PC350NLC-8

#### LEGEND

A : Reach from swing centre B : Bucket hook height

OF: Lifting capacity (rating overfront)
OS: Lifting capacity (rating overside)

#### LEGEND

(1) Position of lifting point

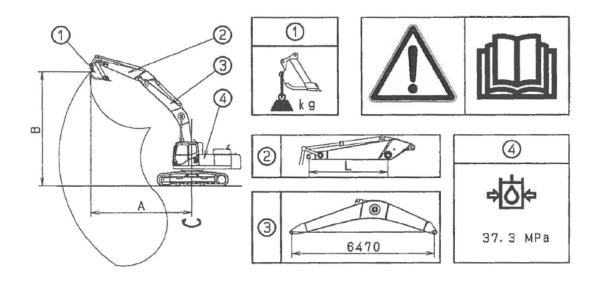
- (2) Arm length:
- (3) Boom length
- (4) Hydraulic pressure: 37.3 MPa

#### WORKING CONDITIONS:

- WITH BUCKET 1014 kg
- IF OBJECT HANDLING IS PERFORMED WITH OTHER TOOL INSTALLED, THE WEIGHT DIFFER-ENCE OF THE TOOL SHALL BE DEDUCTED FROM THE VALUES OF THIS TABLE.
- WITH FULLY EXTENDED BUCKET CYLINDER.
- ON A COMPACT HORIZONTAL LEVEL GROUND.

WITH 600 mm WIDTH SHOE.

Loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity (\* load limited by hydraulic capacity rather than tipping)



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# ATTACHMENTS AND OPTIONS

# **A** WARNING

Please read and make sure that you understand the SAFETY section before reading this section.

# GENERAL PRECAUTIONS FOR SAFETY

When installing attachments or options to the machine, it is necessary to pay attention to safety. Please obey the following precautions strictly when selecting, installing, or using attachments or options.

#### PRECAUTIONS WHEN SELECTING

- Please consult your Komatsu distributor before installing attachments or options to the machine. Depending
  on the type of attachment or option, it may be necessary to install a front guard, overhead guard, or other
  safety structure to the machine. There may also be problems of the attachment or option hitting the operator's
  cab.
- Install only attachments or options authorized by Komatsu. Komatsu cannot accept any responsibility for any
  accident, damage, or failure caused by the use of attachments or options not authorized by Komatsu.

#### READ THE INSTRUCTION MANUAL THOROUGHLY

- Before installing or using any attachment or option, make sure that you thoroughly read and understand the instruction manuals for the machine and the attachment or option.
- If you lose the instruction manual or it is damaged, always obtain an new copy from the attachment manufacturer or your Komatsu distributor.

#### PRECAUTIONS WHEN REMOVING OR INSTALLING

When removing or installing the attachment or option, obey the following precautions, and take care to ensure safety during the operation.

- Carry out the removal and installation operation on a flat, firm ground surface.
- When the operation is carried out by two or more workers, choose the leader and follow his instructions.
- Use a crane when handling heavy objects (more than 25 kg). (The crane must be operated by a qualified operator.)
- Never go under a load raised by the crane.
- Do not carry out operations with the load kept raised by the crane. Always use a stand to prevent the load from falling.
- When removing a heavy part, consider the balance after it is removed. To prevent the machine from tipping over, set a support in position if necessary before removing the part.
- Before installing or after removing the attachment or option, set it in a stable condition to prevent it from falling over.
- For details of the removal or installation operation, please consult your Komatsu distributor.

#### PRECAUTIONS WHEN USING

When long or heavy work equipment is installed, remember the following precautions. Before starting operations, move the machine to a safe place and carry out a test operation to make sure that you fully understand the movement, center of gravity, and working range of the machine.

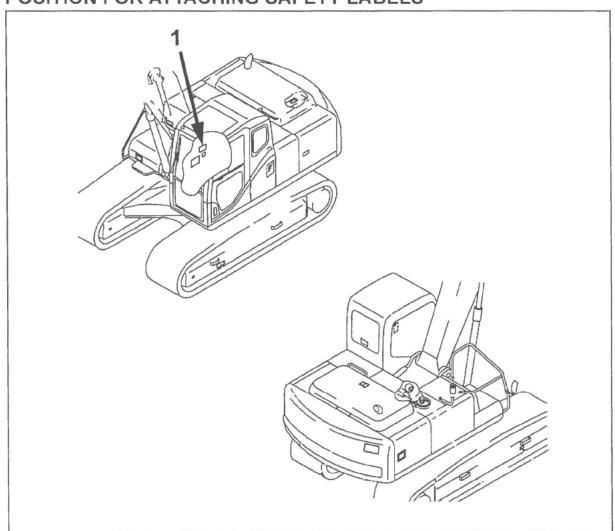
- Do not swing the work equipment if the machine is at an angle. If the work equipment is swung with the machine at an angle, there is danger that the machine will tip over.
- Always maintain a safe distance from obstacles in the surrounding area when operating. If long work equipment is installed, the working range becomes larger.
- If heavy work equipment is installed, pay careful attention to the following precautions.
  - The swing overrun (the distance the work equipment moves before completely stopping after the swing brake is applied) will be greater. There is danger of hitting objects if the swing overrun is miscalculated, so allow extra space to the swing position when swinging.
  - The hydraulic drift of the work equipment (the amount of the work equipment moves down under its own weight when it is stopped in a raised position) also becomes greater. Do not stop the work equipment in a raised position, always lower it to the ground.
  - Do not swing, lower, or stop the work equipment suddenly. There is danger that the machine may tip over.
  - Do not suddenly extend or retract the boom cylinder. The shock may cause the machine to tip over.

# **POSITION FOR ATTACHING SAFETY LABELS**

The following warning signs and safety labels are used on this machine.

- Be sure that you fully understand the correct position and content of labels.
- To ensure that the content of labels can be read properly. Be sure that they are in the correct place and always keep them clean. When cleaning them, do not use organic solvents or gasoline, there may cause the labels to peel off.
- There are also other labels in addition to the warning signs and safety labels. Handle those labels in the same way.
- If the labels are damaged, lost, or cannot be read properly, replace them with new ones. For details of the part numbers for the labels, see this manual or the actual label, and place an order with Komatsu distributor.

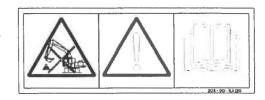
### POSITION FOR ATTACHING SAFETY LABELS



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#### SAFETY LABELS

- (1) Prohibition of lifting (208-00-KA120)
- Demolition machine fitted with high reach work equipment or dig boom must not be used for lifting.



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D65WX-6776

## · Fire coming from electric wiring

Short circuits in the electrical system can cause fire.

- Always keep electric wiring connections clean and securely tightened.
- Check the wiring every day for looseness or damage. Tighten any loose connectors or wiring clamps. Repair
  or replace any damaged wiring.

#### · Fire coming from hydraulic line

Check that all the hose and tube clamps, guards, and cushions are securely fixed in position. If they are loose, they may vibrate during operation and rub against other parts. This may lead to damage to the hoses, and cause high-pressure oil to spurt out, leading to fire damage or serious injury.

#### Explosion caused by lighting equipment

- When checking fuel, oil, battery electrolyte, window washer fluid, or coolant, always use lighting with anti-explosion specifications. If such lighting equipment is not used, there is danger of explosion that may cause serious injury.
- When taking the electrical power for the lighting from the machine itself, follow the instructions in this manual.

#### **ACTION IF FIRE OCCURS**

If a fire occurs, escape from the machine as follows.

- · Turn the start switch OFF to stop the engine.
- · Use the handrails and steps to get off the machine.

#### WINDOW WASHER LIQUID

Use an ethyl alcohol base washer liquid.

Methyl alcohol base washer liquid may irritate your eyes, so do not use it.

#### PRECAUTIONS WHEN USING ROPS

Install ROPS when working in places where there is danger of falling rocks, such as in mines and quarries, or in places where there is danger of rolling over.

- If ROPS is installed, do not remove it when operating the machine.
- ROPS is installed to protect the operator when machine rolls over. When machine rolls over, ROPS supports its weight and absorbs its impact energy.
- If ROPS is modified, its strength may be reduced. When modifying, consult your Komatsu distributor.
- If ROPS is deformed by falling objects or by rolling over, its strength lowers and its design functions cannot be maintained. In this case, be sure to ask your Komatsu distributor about repair method.
- Even if ROPS is installed, it does not work normally, if your seat belt is not fastened. Be sure to fasten your seat belt when operating machine.

#### PRECAUTIONS FOR ATTACHMENTS

- When installing optional parts or attachments, there may be problems with safety or legal restrictions. Therefore contact your Komatsu distributor for advice.
- Any injuries, accidents, or product failures resulting from the use of unauthorized attachments or parts will not be the responsibility of Komatsu.
- When installing and using optional attachments, read the instruction manual for the attachment, and the general
  information related to attachments in this manual.



#### **UNAUTHORIZED MODIFICATION**

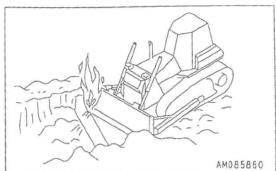
Any modification made without authorization from Komatsu can create hazards. Before making a modification, consult your Komatsu distributor.

 Komatsu will not be responsible for any injuries, accidents, product failures or other property damages resulting from modifications made without authorization from Komatsu.

#### SAFETY AT WORKSITE

Before starting operations, thoroughly check the area for any unusual conditions that could be dangerous.

- When carrying out operations near combustible materials such as thatched roofs, dry leaves or dry grass, there is a hazard of fire, so be careful when operating.
- Check the terrain and condition of the ground at the worksite, and determine the safest method of operation. Do not carry out operations at places where there is a hazard of landslides or falling rocks.
- If water lines, gas lines, or high-voltage electrical lines may be buried under the worksite, contact each utility and identify their locations. Be careful not to sever or damage any of these lines.
- Take action to prevent unauthorized people from approaching the jobsite.
- When working on public roads, position flagmen and erect barriers to ensure the safety of passing traffic and pedestrians.
- When traveling or operating in shallow water cr on soft ground, check the shape and condition of the bedrock, and the depth and speed of flow of the water before starting operations.



#### **WORKING ON LOOSE GROUND**

- Avoid traveling or operating your machine too close to the edge of cliffs, overhangs, and deep ditches. The
  ground may be weak in such areas. If the ground should collapse under the weight or vibration of the machine,
  there is a hazard that the machine may fall or tip over. Remember that the soil after heavy rain or blasting or after
  earthquakes is weak in these areas.
- When working on embankments or near excavated ditches, there is a hazard that the weight and vibration of the
  machine will cause the soil to collapse. Before starting operations, take steps to ensure that the ground is safe
  and to prevent the machine from rolling over or falling.

## DO NOT GO CLOSE TO HIGH-VOLTAGE CABLES

Do not travel or operate the machine near electric cables. There is a hazard of electric shock, which may cause serious injury or property damage. On jobsites where the machine may go close to electric cables, always do as follows.

 Before starting work near electric cables, inform the local power company of the work to be performed, and ask them to take the necessary action.

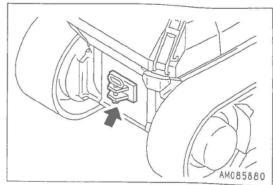
# TOWING

#### WHEN TOWING

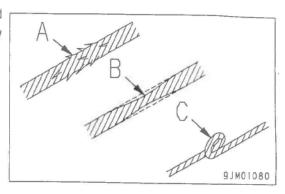
Serious injury or death could result if a disabled machine is towed incorrectly or if there is a mistake in the selection or inspection of the wire rope.

For towing method, see section "MACHINE TOWING METHOD (PAGE 3-127)".

- Always wear leather gloves when handling wire rope.
- Connect a wire rope to the part indicated with the arrow in the diagram at right.
- During the towing operation, never stand between the towing machine and the machine being towed.
- Never tow a machine on a slope.



 Never use a wire rope which has cut strands (A), reduced diameter (B), or kinks (C). There is danger that the rope may break during the towing operation.

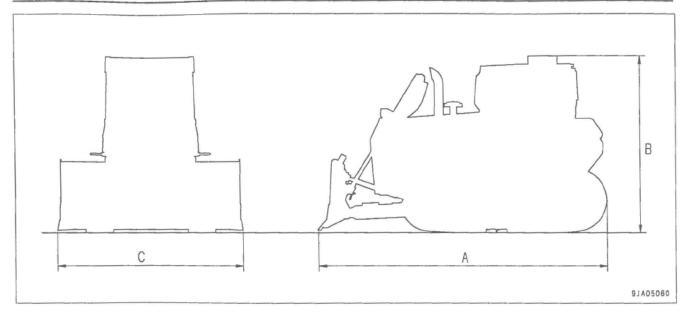


# **SPECIFICATIONS**

# **SPECIFICATIONS**

Power tiltdozer, ROPS guard, cab, air conditioner

	Item	Unit	D65EX-15	D65PX-15	D65WX-15		
	Machine weight	chine weight k		19,550 (43,108)	20,950 (46,195)	20,860(45,996)	
	Name of engine	-	Komatsu SA6D125E-3 diesel engine				
	Engine horsepower	Kw{HP}/rpm	140{187}/1,950				
Α	Overall length		mm (ft in)	5,210 (17'1")	5,550 (18'3")	5,440(17'10")	
В	Overall height		mm (ft in)	3,220 (10'7")	3,255 (10'8")	3,220 (10'7")	
С	Overall width		mm (ft in)	) 3,415 (11'2") 3,970 (13'0")		3,640 (11'11")	
	F	Forward	km/h (MPH)	3.9/6.8/10.6 (2.4/4.2/6.6)			
	Travel speed (1st/2nd/3rd)	Reverse	km/h (MPH)	5.0/8.6/13.4 (3.1/5.5/8.3)			



# ATTACHMENTS, OPTIONS

# **A WARNING**

Please read and make sure that you understand the SAFETY section before reading this section.

# GENERAL PRECAUTIONS

## PRECAUTIONS RELATED TO SAFETY

If attachments or options other than those authorized by Komatsu are installed, this will not only affect the life of the machine, but will also cause problems with safety.

When installing attachments not listed in this Operation and Maintenance Manual, contact your Komatsu distributor first.

If you do not contact Komatsu; we cannot accept any responsibility for any accidents or failures.



#### General precautions

- Read the instruction manual for the attachment carefully, and do not use the machine before you understand the operation method completely.
  - If you lose the instruction manual, be sure to order another copy from your Komatsu distributor.
- To prevent serious personal injury caused by misoperation, place your foot on the pedal only when operating the pedal.

#### Precautions for removal and installation

When removing or installing an attachment, observe the following items and work safely.

- · Select a firm, level surface when installing or removing an attachment.
- · When working in cooperation with one or more other workers, decide signs and observe them when carrying out the operation.
- · When carrying a heavy part (25 kg (55 lb) or more), use a crane.
- When removing a heavy part, always place a support in position before removing it.
   When lifting a load with a crane, be particularly careful of the center of gravity.
- It is dangerous to carry out operations when the load has been raised by a crane. Always lower the load onto a stand and check that it is safe.
- · When leaving an attachment removed or installing it, place it in a stable position to prevent it from falling over.
- Never go under a load raised by a crane.
   Always stand in a place which is safe even if the load should fall.

#### NOTICE

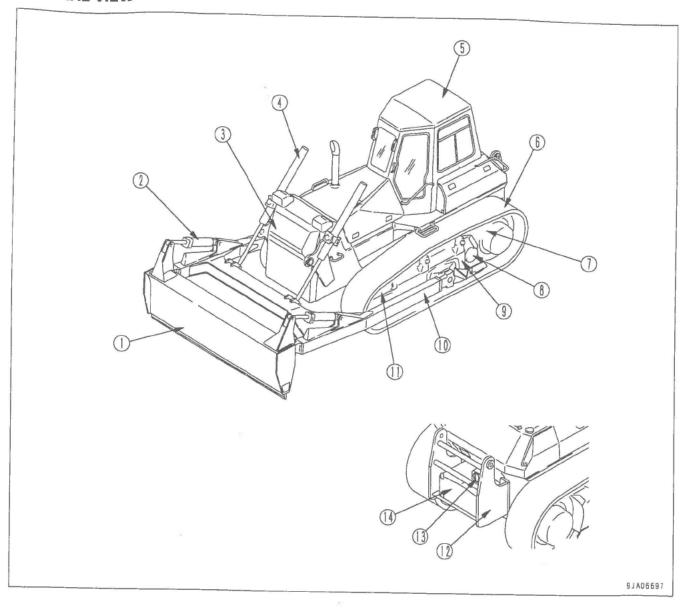
Qualifications are required to operate a crane. Never allow the crane to be operated by an unqualified person. For details of removal and installation operations, contact your Komatsu distributor.

# HANDLING TRIMMING DUZER



This trimming dozer is applicable for the D65EX.

# **GENERAL VIEW**



- (1) Blade
- (2)Trimming cylinder
- (3) Radiator mask
- (4) Lift cylinder
- Cab (5)
- (6)Track shoe
- (7)Sprocket

- (8)Pivot shaft
- (9)Track frame
- (10) Frame
- (11) Idler
- (12) Rear guard
- (13) Red back-up lamp (14) Extra fuel tank (if equipped)

# LIFTING MACHINE

# **WARNING**

- · Do not lift the machine with any worker on it.
- \* Use wire ropes having sufficient strength for the weight of the machine.
- \* Lift the machine only in the position shown below. If it is lifted in another position, it may be unbalanced.
- Lift the machine level.

#### NOTICE

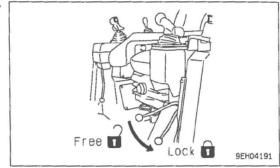
Use protectors, etc. so that the wire ropes will not be broken at sharp edges or narrow places.

For details of the weight, see "SPECIFICATIONS (PAGE 6-19)".

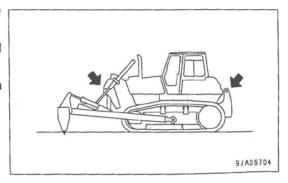
#### PROCEDURE FOR LIFTING OPERATIONS

When lifting the machine, stop it on a level place, then observe the following procedure.

- 1. Stop the engine and set the parking brake lever to the LOCK position.
- 2. Close the cab door, window and side cover securely.



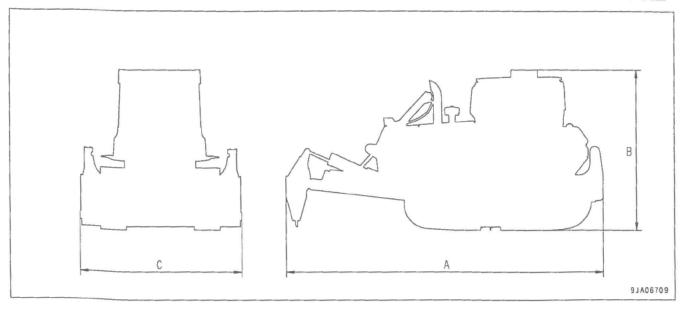
- 3. Use a wire rope and sling that matches the weight of the machine.
- 4. Install shackles to the lifting holes at the top of the rear guard and the front of the radiator guard then fit the wire.
- 5. When applying tension to the wire with a crane, fit wooden blocks at the points where the wire touches the chassis.



# SPECIFICATIONS

With trimming dozer and ROPS cab

		Item	Unit	D65EX-15	
	Machin	achine weight kg (lb)		20,900 (46,085)	
Α	Overall length (Incl. rear guard)		mm (ft in)	6,475 (21'3")	
В	Overall height Overall width		mm (ft in)	3,220 (10'7") 3,210 (10'6")	
С			mm (ft in)		
		Maximum lift above ground	mm (ft in)	1,610 (5'3")	
	Plada	Maximum drop below ground	mm (ft in)	685 (2'3")	
	Blade	Tilting angle, forward	Degrees	29	
		Tilting angle, rearward	Degrees	22	



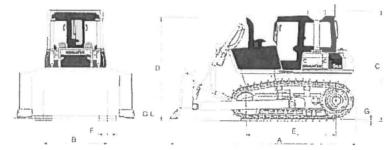


#### DIMENSIONS

	D65EX-15 Semi-U Tilt Dozer	D65PX-15 Straight Till Dozer	D65WX-15 Semi-U Tilt Dozer		
A	5440 mm 17'10"	5520 mm 18'1"	5440 mm 17'10"		
8	1880 mm 6'2"	2050 mm 6'9"	2050 mm 6'9"		
C	3220 mm 10'7"	3220 mm 10'7"	3220 mm 10'7"		
D	2990 mm 9'10"	2990 mm 9'10"	2990 mm 9'10		
E	2675 mm B'9"	3285 mm 10'9"	2675 mm 8'9"		
F	510 mm 20.1"	915 mm 36.0"	810 mm 31.9"		
G	65 mm 2.6"	65 mm 2.6"	65 mm 2.6"		

Ground clearance

.405 mm 1'4"



Dimension with Semi-U till dozer (D65EX-15) single grouser shoe.



#### **OPERATING WEIGHT**

Tractor weight:

Including rated capacity of lubricant, hydraulic control unit, coolant, full fuel tank, operator, and standard equipment. D65WX-15......18050 kg 39,790 lb Operating weight

Including Semi-U tilt dozer (EX/WX) or straight tilt dozer (PX), steel cab, ROPS, operator, standard equipment, rated capacity of lubricant, hydraulic control unit, coolant, and full fuel tank. D65WX-15......21140 kg 46,610 lb



#### HYDRAULIC SYSTEM

Closed-center load sensing system (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.

Hydraulic control units:

All spool valves externally mounted beside the hydraulic tank. Plunger type hydraulic pump with capacity (discharge flow) of 210 Itr/min 55.5 U.S. gal/min at rated engine rpm.

Relief valve setting. . . . . . . . . . 20.6 MPa 210 kg/cm<sup>2</sup> 2,990 psi Control valves:

Spool control valves for tilt dozer

Additional control valve required for multi-shank ripper (EX) Positions: Ripper lift. . . . . . . . . . Raise, hold, and lower

Hydraulic cylinders ..... Double-acting, piston

	Number of cylinders	Bore
Blade lift	2	95 mm 3.7"
Blade tilt	1	140 mm 5.5"
Ripper lift	1	140 mm 5.5"

Hydraulic oil capacity (refill):

Ripper equipment (additional volume): 



#### DOZER EQUIPMENT

Blade capacities are based on the SAE recommended practice J1265. Use of high tensile strength steel in moldboard for strengthened blade construction.

	Overall Length	Blade	Blade	Max. Lift	Max. Drop	Max. Tilt		Weight	Ground
	With Dozer mm ft.in	Capacity m <sup>3</sup> yd <sup>3</sup>	Width x Helght mm ft.in	Above Ground mm ft.in	Below Ground mm ft.in	Adjustment mm ft.in	Dozer equipment kg lb	Hydraulic control unit kg lb	Pressure kPa kg/cm² psi
<b>D65EX-15</b>	5440	5.61	3460 x 1425	1105	440	855	2280	720	10.8/0.11/1.5
Semi-U Tilt Dozer	17'10"	7.34	11'4" x 4'8"	3'8"	<b>1'5</b> "	<b>2'10</b> "	5,030	1,590	
D65EX-15	5210	3.89	3415 x 1225	1105	440	870	2000	720	9.8/0.10/1.42
Straight Tilt Dozer	17'1"	5.09	11'2" x 4'0"	<b>3'8</b> "	1'5"	<b>2'10"</b>	4,410	1,590	
D65EX-15	5470	3.55	3970 x 1100	1185	450	400	2280	650	10.8/0.11/1.5
Angle Dozer	<b>17'1</b> 1"	4.64	13'0" x 3'7"	3'11"	<b>1'6</b> "	1'4"	<b>5,030</b>	<b>1,430</b>	
<b>D65PX-15</b>	5520	3.69	3970 x 1100	1105	540	450	2030	710	4.5/0.046/0.6
Straight Tilt Dozer	18'1"	4. <b>83</b>	13'0" x 3'7"	3'8"	<b>1'9</b> "	<b>1'6</b> "	4,480	<b>1,570</b>	
D65WX-15	5440	6.23	3640 x 1410	1105	440	820	2360	720	6.9/0.07/1.00
Semi-U Tilt Dozer	<b>17'10</b> "	8.15	11'11" x 4'8"	3'8"	1'5"	<b>2'8</b> "	<b>5,200</b>	1,590	

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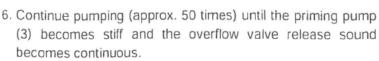
- 2. Loosen air bleed plug (2) at the fue ter head.
- 3. Loosen the knob of priming pump (3), pump the knob, and check that fuel comes out from air bleed plug (2).

After checking, tighten the plug.

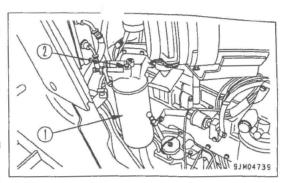
Tightening torque: 7.8 to 9.8 N·m (0.8 to 1 kgf·m, 5.8 to 7.2 lbft)

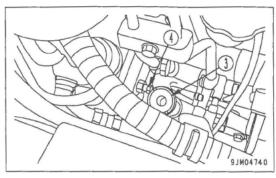
- 4. Loosen air bleeder (4) of the supply pump.
- 5. Pump priming pump (3) until no more bubbles come out with the fuel from air bleeder (4), then tighten air bleeder (4).

Tightening torque: 4.9 to 6.9 N·m (0.5 to 0.7 kgf·m, 3.6 to 5.1









- 8. If the air is not bled properly, return to Step 3 and bleed the air again.
- 9. For normal starting operations, turn key in the starting switch to the START position to start the engine.

#### MACHINE TOWING METHOD



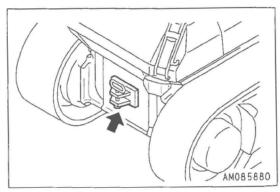
## **WARNING**

- · Be sure to use a wire rope sufficiently strong for the towing weight.
- · When using the towing hook, be sure to use a shackle.
- · Set the wire rope level and align it with the track frame.
- · Tow the machine slowly.

#### NOTICE

The maximum towing capacity for this machine is 14,275 kg (140,000 N). Always carry out towing operations within the maximum towing capacity.

If the machine gets stuck in the mud or a heavy thing needs to be towed, install a towing wire rope to the draw bar pin.



D65Ex-15EO Page 1 of 3



D65Ex-15EO Page 2 of 3

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#### KOMTRAX

#### Equipment

Backhoe Loaders Crushers Dozers-Crawler Dozers-Wheeled Dump Trucks-Articulated Dump Trucks-Rigid Graders

Excavators Face Shovels Skidsteer Loaders Wheel Loaders

#### Renta

Rental Solutions
Maintained Machinery
Product Line Up
2D & 3D Machine Control
Komatsu Credit Application
Komatsu Rental Terms &
Conditions
Request a Quote

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# WARNING TO THE USERS OF SYNTHETIC PRODUCTS

The A WARNING loon, used in our product information is done to alert sling users to potentially hazardous conditions and situations.

A WARNING It is your explicit responsibility to consider all risk factors prior to using any rigging device or product. Read and understand the information contained in this bulletin, in our catalog, on our web site www.lift-it.com and follow OSHA and ASME guidelines. Use by untrained persons is hazardous.

The American Society of Mechanical Engineers, in the Sling Safety Standard, ASME B30.9-2003, clearly establishes the requirement for training. Sections 9-5.1 and 9-6.1-Training states, "Synthetic webbing and round sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment and rigging practices, covered by this chapter."

All Products supplied and manufactured by Lift-It9 Manufacturing are sold with express understanding that the purchaser and user are thoroughly familiar with the safe and proper use and application of the product. The qualified person and sling user has the responsibility for use and application, and should have sufficient training and knowledge of all applicable standards to responsibly use our products.

Failure to follow proper use, care and inspection criteria could result in severe personal injury or death. Synthetic A WARNING products will fail if damaged, abused, misused, overused, or improperly maintained.

#### WHEN ORDERING OR USING, ALWAYS CONSIDER:

Type of hitch

Chemical Environment

· Sling-to-Load angle

· Adequate Wear Protection

## Sling Hitches

Slings carry their loads in one of three primary hitches. The work load limit of the sling is affected by the hitch that is used. Most slings can be used in all three hitches, but some slings are designed for use in only one hitch. Slings have the largest work load limit when used in a basket hitch. The work load limit of a vertical hitch is 50% of the basket hitch. The same sling would be assigned a different work load limit for the choker hitch. The choker work load limit is a maximum of 80% of the vertical work load limit per ASME recommendation.



CHOKER HITCH

Sling passes through one eye around the load. The other eye is free to be placed on the hook.



VERTICAL HITCH

One eye is on the hook, while the other eye is attached directly to the load. Use a tagline to prevent load rotation.



BASKET HITCH

The sling cradles the load while both eyes are attached overhead.

# Chemical Considerations

It is important to select a sling that has the proper chemical characteristics, making the sling compatible with its environment.

#### PERFORMANCE CHARACTERISTICS OF SYNTHETIC FIBERS

#### NYLON

Nylon is popular and general purpose synthetic fiber which is unaffected by common grease and oil. Nylon products have good resistance to aldehydes, hydrocarbons, ethers and some alkalis, while degradation ranging from none to moderate occurs with exposure to certain alkalis. Nylon slings are not suitable for use with acids and bleaching agents. Exposure can result in degradation from none to total. Dilute acids, such as, hydrochloric and sulfuric in 10% concentrations at room temperature cause a significant loss in strength in 10 hours.

#### Solvents for nylon include:

- · Concentrated formic acid
- · Phenolic compounds at room temperature
- · Calcium chloride in methanol at room temperature
- · Hot solutions of zinc chloride in methanol
- · Benzyl alcohol at the boil

Hot solutions of calcium chloride in:

- · Glacial acetic acid
- · Ethylene Chlorohydrin
- · Ethylene Glycol

Nylon is also not significantly affected by compounds of the following classes: alcohols, dry cleaning solvents, halogenated hydrocarbons, ketones, soaps and synthetic detergents or water (including sea water).

Nylon products lose 15% of their work load when wet. The acceptable temperature exposure range is -40°F (-40°C) to a maximum of 194°F (90°C). Stretch at work load limit is approximately 6-8%.

All webbing will become shorter, over time. Nylon webbing placed on a table, with no use, will shrink up to 5% in length after six months, as a result of the weave configuration. Dense webbing shrinks less than a loose weave. Nylon will shrink more than polyester webbing. Other factors that affect shrinkage are humidity, temperature and usage.

#### **POLYESTER**

Polyester is not significantly affected by most compounds of the following classes: alcohols, dry cleaning solvents, halogenated hydrocarbons, ketones, soaps and synthetic detergents or water (including sea water). Polyester also has good to excellent resistance to aqueous solutions of most weak acids at the boil and to most acids at room temperature, but is disintegrated by concentrated sulfuric acid (95%) at room temperature. Polyester products also have good resistance to most aqueous solutions or strong alkalis at room temperature, but are degraded by the same solution at the boil. Oxidizing agents and bleaching treatments ordinarily used by the textile industry also do not degrade polyester fiber. Stretch at work load limit is approximately 3-4% and polyester does not lose strength as a result of moisture absorption. The acceptable temperature exposure range is -40°F (-40°C) to a maximum of 194°F (90°C).

# Sling-To-Load Angle

Slings with adequate work load limits to handle the "scale" weight of the load have catastrophically failed because of an inadequate consideration of the sling angle and the increased tension.

Any load rigged in a hitch that is not vertical, develops increased tension on the sling. When selecting a sling, always consider the sling to load angle (horizontal angle) and the tension that will be applied to the sling.

#### SLING-TO-LOAD ANGLE



The horizontal angle formed between the sling leg and the "top of the load.

ANGLE "A" DEGREES	LOSS FACTOR	ANGLE "A" DEGREES	LOSS FACTOR	
90	1.000	55	.8192	
85	.9962	50	.7660	
80	.9848	45	.7071	
75	.9659	40	.6428	
70	.9397	35	.5736	
65	.9063	30	.5000	
60	.8660	25	.4226	



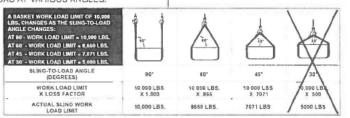
LUSTRATED ABOVE- INCREASED LOAD STRESS IS MAGNIFIED BY ANY CHANGE FROM VERTICAL TOWARD HORIZONTAL LIFTING. THE SAME STRESS IS IMPOSED UPON SLING LEGS ATTACHED TO THE LOAD AT VARIOUS ANGLES.

Whenever a choker Hitch results in an angle of choke that is less than 120 degrees, the work load limit must be adjusted

Simply multiply the choke hitch work load limit by the appropriate loss factor to determine the sling's actual work load limit.

Angle of Choke (Degrees)	Loss Factor		
120 - 180	1.000		
90 - 119	.820 .710		
60 - 89			
30 - 59	.600		
0 - 29	.480		





SLING ANGLES OF LESS THAN 45 DEGREES SHOULD NOT BE USED. UNLESS APPROVED BY A QUALIFIED PERSON.

MAGNETIC CORNER PROTECTOR

"cornered" load and keep the sling from contacting the load.

Magnetic corner protectors are fabricated from a durable synthetic material that protects synthetic and wire rope slings from damage. They work on any 90 degree

Magnetic corner protectors are "protection rated" at 12,500 PSI. Available in 9, 12 and 18 inch lengths. Application temperatures range from -20°F( -29°C) to 220°F

falling from metallic loads and are not intended to prevent the protector or sling from sliding. Slings and protectors should be vertical or perpendicular to the load, The farther from vertical that the slings and protectors are, the more likely the protectors and slings will slide to become vertical and result in load instability and uncontrolled load descent. When using magnetic corner protectors always

The magnets are designed to keep the protector from

( 104°C) . Heavy duty protectors, featuring larger diameters are also ava

#### Wear Protection

Synthetic slings can be damaged, abraded or cut as tension and compression between the sling, the connection points and the load develops. Edges and abrasive surfaces in contact with the sling must be "padded" with materials of sufficient strength and/or thickness to prevent damage and catastrophic sling failure.

The edge of the load need not be "razor" sharp to damage the sling. A combination of non-positive sling to load contact (sling slipping across the load) and inadequate wear protection materials may result in wear protection damage and sling failure. The result is uncontrolled load descent.

Wear protection may not prevent cutting or other forms of sling damage. Personnel should never be under or on the load, while the lift is in progress,

**△** WARNING

MESH GUARD

"Cut proof" wear protection does not exist. Materials must be evaluated and selected based upon the application and type of exposure. Some materials are suitable for abrasion resistance, but offer virtually no protection against the effects of cutting. Twin-Path Extra, High Performance Fiber Slings can develop a 25,000 pound per inch of width, work load limit. A web sling can develop a 12,800 pound per inch of width, work load limit. Certain materials used in the construction of wear protection and protectors have been evaluated for cut resistance. Magnetic corner protectors, Cornermax\* and Meshguard\* wear protectors have been evaluated and are rated for cut resistance, exceeding the 12,800 pounds per inch loading requirement.

A WARNING Materials of sufficient strength and resistance to damage must be employed to prevent injury, death and or property damage.

#### SLEEVES

Sleeves cover both sides of the sling and can be shifted to a specific location. The sleeve can also be re-positioned for quick and easy inspection of the sling.

Available in six different materials: Cordura", Heavy Duty Nylon, Leather, Neoprene, Felt and Aramid. Available in sewn edge, tubular and quicksleeve constructions.

Wear pads are sewn to the sling for protection in critical wear areas. These pads can be sewn at any location, in single or multiple layers and can be attached to one or both sides of the sling. Leather wear pads in excess of 5 feet are not recommended.

#### EDGE WRAP

A strip of Cordura or leather is sewn around the edge of the sling. This form of protection is necessary in applications where excessive edge wear and damage occur. Consider using Polyester Monster Edge' webbing.

This form of protection is similar to the sleeve, but is sewn to the sling body and protects not only the body, but the edges of the sling.

Cornermax wear protection is truly remarkable because its design forms a tunnel between the load edge and the wear pad. This "barrier" greatly reduces the possibility of cutting.

WARNING

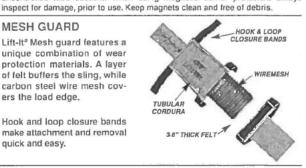
No form of wear protection is cut proof.



CORNERMAX PART NUMBER	SLING WIDTH (INCHES)	CORNERMAX WIDTH (INCHES)	PROTECTION RATING (LBS)	
CM-6	1 - 2 IN	6	25,000	
CM-8	UP TO 5 IN.	8	60,000	
CM-10	UP TO 6 IN.	10	100.000	
CM-12	UP TO B IN.	12	100,000	
CM-14	UP TO 12IN.	14	100.000	

Lift-It<sup>®</sup> Mesh quard features a unique combination of wear protection materials. A layer of felt buffers the sling, while carbon steel wire mesh covers the load edge.

Hook and loop closure bands make attachment and removal quick and easy.



D

#### SHACKLE PIN PROTECTOR PADS







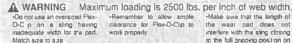


If you must rig on the pin, protect your sling with a shackle pin protector pad.

- Full length protection, including the ear seams.
- Three connection points secure pad to shackle
- Installation and removal in seconds.

#### FLEX-O-CLIP

Made of transparent material. Flex-O-Clip is sturdy and provides flexibility to conform to irregular shaped loads. The entire sling body can easily be inspected by peeling the Flex-O-Clip from the sling; when finished re-install the protector, Available for: 2, 3, 4, 6, 8 10 and 12 in, web widths. Maximum length is 16 ft.



Do not use an oversized FlexO-C p on a sling having clearance for Flex-O-Ctp to inadequate width for the pad.

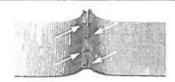
 Work properly.

•Make sure that the length of the wear pad does not interfere with the sling closing to the full gripping position on

# Design Features

#### RED CORE WARNING YARNS

#### SLING TAG / WARNING TAG



Lift-It' webbing has inner load bearing yarns that carry over 70% of the load. Woven into this same layer are red core warning yarns which may become visible as the protective outer cover is worn away. The exposure of these yearns provides the sling user/inspector with a signal to remove the sling from service.

In some applications, sling become extremely dirty, making it difficult to see the red core warning yarns.

MARNING DO NOT USE SLINGS THAT ARE STRUCTURALLY DAMAGED, IT THE RED CORE WARNING YARNS ARE NOT VISIBLE.

WEAR OR DAMAGE TO THE COVER YARNS OF SLING WEBBING RESULTS IN IMMEDIATE STRENGTH LOSS.



A heavy duty, branded, leather tag is attached to all slings. The necessary information required by the various regulatory agencies is hot branded into genuine leather, resulting in the most durable tag available. Hitch diagrams, date of manufacture and a unique sling identification number are also included. Custom tags can also be attached for a nominal charge. In addition to the sling tag, a warning tag is also attached. It contains important safety information in icon format to transcend language, literacy and comprehension barriers. The warning tag also contains information for removal from service, from an OSHA and ASME perspective. Proper use, care, inspection and loss control measures are enhanced by the Lift-It tag and warning system.

## Sling Inspection

#### INSPECTION SYSTEM

A specific procedure for the inspection of synthetic slings is the best safeguard against sling damage and abuse. We recommend that you employ a three stage level of inspection. Slings removed from service that are not capable of repair should be destroyed and rendered completely unfit for any future use.

#### INITIAL

The Web Sling and Tiedown Association defines the initial level of inspection as, "Before any new or repaired sling is placed in service, it shall be inspected by a designated person to ensure that the correct sling is being used, as well as to determine that the sling meets the applicable requirements."

The American Society of Mechanical Engineers also states in the initial inspection that, "prior to use, all new, altered, modified or repaired slings shall be inspected by a designated person to verify compliance to all applicable standards".

The initial level of inspection is done upon receipt to ensure that no damage has occurred during transit. The products must also be verified to be correct, as ordered and that they comply with the manufacturer's specifications. Without printed product specifications this comparison cannot be accomplished. If written records for individual slings are to be maintained, the specific sling information should be initiated at this level of inspection.

#### FREQUENT

The frequent level of inspection should be done by the person handling the sling, before every use. The entire sling should be thoroughly examined and removed from service if damage is detected. OSHA stipulates that, "each day before being used, the sling and all fastenings and attachments shall be inspected for damage and defects by a competent person designated by the employer."

The sling user and designated qualified person must also determine that the sling is proper for the intended use, hitch, load and environment. Any condition that may result in a hazard shall cause the sling to be removed from service. Written inspection records are not required for frequent inspections.

#### PERIODIC

The periodic level of inspection should be done by designated personnel at regular intervals. The interval is based upon: the frequency of use, severity of the service conditions and information derived through the inspection process. Recommendations to prevent damage must be evaluated to improve the service life of the replacement slings. Periodic inspection intervals shall not exceed one year intervals.

ASME states that guidelines for the inspection time intervals are as follows:

Normal Service--Yearly

Severe Service---Monthly or Quarterly

Special Service--As recommended by a qualified person

Written records of the most recent periodic inspection shall be maintained. Reference to a unique, sling identification number is not required. Records and documentation should be kept in the safety office or at the specific sling storage area.

#### REMOVAL FROM SERVICE CRITERIA

#### OSHA 1910.184 - REMOVAL FROM SERVICE CRITERIA

Synthetic web slings shall be immediately removed from service if any of the following conditions are present:

- (I) Acid or caustic burns
- (II) Melting or charring on any part of the sling surface
- (III) Snags, punctures, tears, or cuts
- (IV) Broken or worn stitches
- (V) Distortion of fittings

#### ASME B30.9 - REMOVAL FROM SERVICE CRITERIA

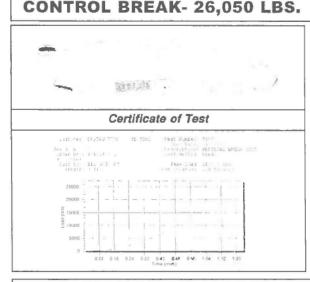
- Missing or illegible sling identification
   Section 9-5.7.1 requires that each sling be marked to show the following:
  - 1) name or trademark of the manufacturer
  - 2) manufacturer's code or stock number
  - rated loads for the type(s) of hitch(es) used and the angle upon which it is based
- type of synthetic material
   Acid or caustic burns
- c) Melting or charring of any part of the sling
- d) Holes, tears, cuts or snags
- e) Broken or worn stitching in the load bearing splices
- f) Excessive abrasive wear
- g) Knots in any part of the sling
- Discoloration and brittle or stiff areas on any part of the sling, which may mean chemical or ultraviolet' sunlight damage.
- Fittings that are pitted, corroded, cracked, bent, twisted, gouged or broken
- For hooks, removal criteria as stated in ASME B30.10
   For other applicable hardware, removal criteria as
- stated in ASME B30.26
- Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

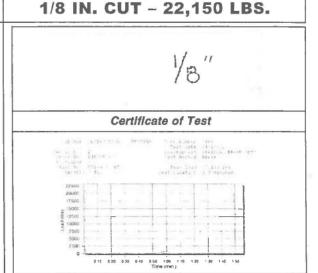


# Effects of "Minor" Damage

Four, identical, single ply slings (3 inch wide) were fabricated from a single roll of webbing. All independent variables were controlled as the same thread, machine and sling fabricator were used for this exercise. With a vertical work load limit of 4800 lbs., we would expect a 24,000 lbs. break strength. The control sling broke at 26,050 lbs. The remaining three slings were cut on one edge to different depths. The "minor" damage resulted in very significant strength loss.

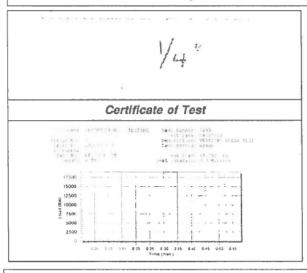
A WARNING "Minor" damage is extremely serious and damaged slings must be removed from service, immediately to prevent injury and death.

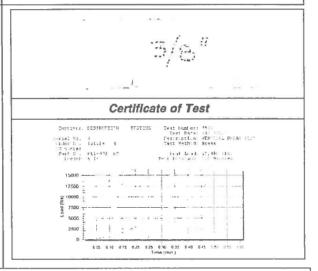




1/4 IN. CUT - 18,090 LBS.







#### **ENVIRONMENTAL CONSIDERATIONS**

#### ULTRAVIOLET (UV) LIGHT

Environments where synthetic webbing slings are continuously exposed to ultraviolet light can affect the strength of synthetic webbing slings in varying degrees ranging from slight to total degradation. Factors which affect the degree of strength loss are the length of continuous exposure time, sling construction, design and other environmental factors such as, weather conditions, elevation and geographic location. Initially, nylon web slings lose strength at a slower rate, when compared to polyester slings, but continued to lose strength as the exposure time is extended. The loss of strength for nylon slings can be 40 to 60% after exposure for periods ranging from 12 to 36 months. Polyester web slings lose strength at a greater rate, when compared to nylon slings. Loss in strength for polyester slings was approximately 30% after 12 months exposure. Polyester sling strength loss seemed to subside and level off after the initial 12 month period. Visual indicators of ultraviolet degradation are a bleaching out of sling color, increased stiffness of the sling material and the appearance of abrasion in areas not normally in contact with the load. Slings used in environments where they are subject to continuous exposure to ultraviolet light should be proof tested to two times the work load limit, semi-annually, or more frequently depending on the severity of exposure.

#### TEMPERATURE

Conventional synthetic products should never be used at temperatures in excess of 194 F (90°C). Cold temperature exposure to -40°F/(-40°C) does not affect the strength of the synthetic sling. Temperature exposure outside the acceptable range must be considered and evaluated by the user.

#### STORAGE

When not in use, store slings in a cool, dry, dark location, free of mechanical and environmental damage. The storage location should be ventilated and not exposed to heat sources, weld splatter, or grit and splinters from grinding.

#### FOREIGN MATERIAL

Metal chips, weld splatter or heavy grit can damage a sling both externally and internally.

#### CHEMICAL

Chemically active environments can affect the strength of synthetic products in varying degrees ranging from moderate to total degradation. Before slings are used, the chemical compatibility between the sling components and the environment must be considered. Consult the sling manufacturer before purchasing to ensure the synthetic products and their components are chemically compatible with the environment.

#### WATER

When nylon products are "wet", they experience a 15% reduction in strength. Polyester looses no strength when wet.

#### SALT WATER

Slings that have been exposed to saltwater should be thoroughly rinsed and allowed to dry, preferably out of direct sunlight.

# Mechanical and Operational Considerations

Select the sling having the most suitable characteristics for the type of load, hitch and environment.

Determine that the weight of the load is within the work load limit of the sling.

Slings shall not be loaded in excess of the work load limits. Consideration should be given to the angle of lift, (sling-to-load angle) which affects the work load limit of the sling. Diameters of pins and load contact edges also may affect the work load limit of the sling.

A WARNING Do not exceed work load limits.

You are cautioned that all published work load limits and break strengths apply to only new and unused slings, assemblies and hardware. Work load limits are based upon: material strength, design factor, type of hitch, angle of loading, the diameter and curvature that the sling contacts, and destruction testing done in laboratory controlled, testing conditions, which will never be duplicated during actual usage. Working Load limits are also based on a moderately dynamic lifting or pulling operation. Instantaneous changes (drops or sudden pick ups) in excess of 10% of the work load constitute hazardous shock loading and THE WORKING LOAD LIMITS AS STATED, DO NOT APPLY.

Do not accelerate or de-accelerate the load too fast. The "G" force on a 1000 lbs. load dropped 3 feet could surpass the ultimate strength of the sling. A load picked up too fast can develop a stretch'friction/surface heat that will surpass the melting temperature of the sling.

WARNING Working load limits for Multi-Leg Bridle Assemblies are based on the following conditions:

- 1. Even load weight distribution on all legs.
- The bridle legs being same length. If the legs are not sharing the load equally, the assembly design factor is reduced.
- the load equally, the assembly design factor is reduced.

  3. All bridle legs used at the same horizontal angle.

  If the conditions of the lift vary from those above, the work load limit must be recalculated.

The sling shall be securely attached to the load and rigged in a manner to provide for load control. The sling must be rigged to prevent slipping and sliding along the load edge. Slings "skipping" through hardware components in the sling system can become damaged. Balancing and controlling the load is critical and necessary to prevent sling damage and failure. Multiple factors must be taken into consideration to ensure that load control and stability are attained.

A load with a "high" center of gravity can rotate in certain sling hitches.

Sling legs should contain or support the load from the sides above the center of gravity when using a basket hitch.

Load edges in contact with the sling must be "padded" with materials of sufficient thickness or strength to prevent sling damage. The protection must be installed and evaluated for suitability by raising the load, slightly and then lowering the load for an inspection of the sling and the protection devices. Several "test" lifts may be necessary to determine the proper form of protection for a successful lift.

WARNING Wear protection may not prevent cutting or other forms of sling damage. To avoid severe personal injury or death, personnel should be kept away from the load and never be under or near the load, while it is being lifted or suspended. Never stand near or in line with a sling, under tension.

Synthetic slings shall not be shortened, lengthened, tied in knots, or joined by knotting.

Twisting and kinking the sling legs shall be avoided.

Slings used in a choker hitch must be of adequate length for the choke action to occur on the sling body. The choke action should not occur on the fitting or eye, at the base of the fitting or eye, on the load carrying splice or the sling tag.

Slings used in a choker hitch shall not be forced to tighten around the load by pounding with hammers or other objects. Choker hitches are the least efficient way to use a sling based on work load limit. Two slings should be used to balance the load. One sling used in a choker hitch may result in a situation where an unbalanced load could lead to an accident.

A sling rigged in a choke hitch (not double wrapped) does not make full contact with the load. Use multiple slings, and wrap the load, when practical to ensure full contact. Do not allow the slings to cross over each other.

Always refer to the sling tag to determine the sling work load limit. Keep the sling tags and labels away from the load, the hook and the choke action of the sling. The sling tag should be maintained and kept legible during the life cycle of the sling by the sling user.

Do not place the load carrying splice in a connection point to the load or in the lifting mechanism. Synthetic products stretch when the load is applied. Stretching can be reduced by using polyester slings, slings with larger work load limits or by selecting a low elongation, High Performance Fiber, Twin Relate Sling.

Aluminum Hardware is severely degraded by alkali, caustic and acidic environments. Salt water also degrades aluminum. Aluminum hardware should never be exposed to chlorine environments or cleaned with chlorine based solutions. Steel hardware is not impervious to these elements. Chemical and environmental compatability must be assessed and suitability determined by the user. Avoid contact of hardware with load edges.

A WARNING The hook latch is designed to retain slings under slack conditions. The hook latch is not intended to support the load.

Caution: The use of G Links  $^{\text{TM}}$  on larger stock diameters than recommended may lower the design factor.

A WARNING Placing synthetic slings on the shackle pin should be avoided. Even a new shackle can have damaging, exposed threads. If the synthetic sling contacts this area, it can be cut and fail catastrophically. If you must rig on the pin, protect your sling with a shackle pin protector pad.

▲ WARNING The use of improper fittings and or materials may result in severe personal injury or death.

Synthetic slings shall not be constricted or bunched between the ears of a clevis or shackle, or in a hook.

All hooks, shackles and other fittings must be free of edges and surfaces that could damage the sling.

All loads applied to the lifting hook should be centered in the "bowl" of the hook to prevent point loading

The opening in the fitting should be one of the proper shape and size to ensure that the fitting will seat properly in the lifting hook or other points of attachment.

The fittings used in a sling system must be of the proper shape, size and diameter to prevent damage to the sling. The "sling-fitting" relationship must be proper to ensure that the sling will seat properly and, in doing so, derive the greatest work load limit.

Sling hardware or any object in the sling eye should not be wider than one-third the length of the eye.

Attached sling hardware may be returned to the manufacturer for possible reuse. It must be tested to twice the work load limit.

Slings shall not be dragged on the ground, floor or over abrasive surfaces.

Slings shall not be pulled from under loads when the load is resting on the sling.

Loads resting on the sling could damage the sling. If feasible, place blocks under the load prior to setting down the load to allow removal of the sling.

Synthetic slings should never be used to pull an object in a snagged or constrained condition. Synthetic slings are designed to stretch; the recoil caused by any sudden release of a lifting constraint could result in a dangerous projection of the load.

During the lift, with or without load, personnel shall be afert for possible snagging.

Do not drop objects on slings or slings equipped with metal fittings.

Do not run over slings with trucks or other equipment.

Personnel should stand clear of the load and shall not ride the load.

Personnel should never be under, or on a live or suspended load.

Portions of the human body shall not be placed between the sling and load or between the sling and lifting hook.

Synthetic slings shall not be used as bridles on suspended personnel platforms.

▲ WARNING Steam cleaning at temperatures in excess of 194°F (90°C) can damage the sling. Power or pressure washing can force residue inside web and yarn fibers. The foreign material can cause internal yarn and fiber damage.

▲ WARNING Wide Body Cargo and Attached Eye Cargo slings are for use in Basket Hitches Only.

Hose Handling, Pipe Lifting Sling with quick disconnect and Remote Release Slings are for use in Choker Hitches Only.



#### WALLING TO THE USER OF SYNTHELIC SLINGS

A WARNING Failure to follow proper use, care and inspection criteria could result in severe personal injury or death. Synthetic products will fail if damaged, abused, misused, overused, or improperly maintained

It is your explicit responsibility to consider all risk factors prior to using any rigging device or product. Read and understand the information contained in this bulletin, in our catalog, on our web site www.lift-it.com and follow OSHA and ASME guidelines. Use by untrained persons is hazardous.

The American Society of Mechanical Engineers, in the Sling Safety Standard, ASME B30.9-2003, clearly establishes the requirement for training. Sections 9-5.1 and 9-6.1-Training states, "Synthetic webbing and round sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment and rigging practices, covered by this chapter.

WARNING All Products supplied and manufactured by Lift-It Manufacturing are sold with express understanding that the purchaser and user are thoroughly familiar with the safe and proper use and application of the product. The qualified person and sling user has the responsibility for use and application, and should have sufficient training and A WARNING knowledge of all applicable standards to responsibly use our products.

#### ACCIDENT PREVENTION THROUGH EDUCATION

If you are not trained in the use of synthetic lifting slings, you and your employer should consider the Lift-Itr Sling Safety Program. The benefits of educating synthetic sling users, prior to death or injury, clearly outweigh any effort done in reaction to a liability incident. The Lift-it's Sling Safety Program is concise and coordinates the users, the inspection process and your facility. The program results in an ongoing and viable system that protects the sling user, property and the corporate bottom line.

The Sling Safety Program provides detailed instruction to all parties who are involved in rigging and hoisting loads. Participants should include specialized and incidental riggers, sling inspectors, safety and training, loss control, quality assurance, tool room and purchasing personnel.

Our goal is accident prevention through education. The cost for our services is truly incidental when compared to expense of a single "incident". If together we prevent just one accident, then we have accomplished our objective. Contact us for a mutually convenient training date and take the first step to improve overall efficiency and safety consciousness.

#### ON-SITE PROGRAMS

Thousands of sling users and inspectors have been educated, on location, through the Lift-It? Sling Safety Program.

The preferred program is a two day seminar. Day one features either and eight hour sling user /inspector class or two of the four classes. Day two features a sling inspector class and a facility program. Arrange the four hour class modules in any sequence desired to attain your specific scheduling and training objectives. Invite other interested parties to your program and "share" not only the cost, but the benefit.

#### CURRICULUM PROGRAM

#### SLING USER CLASS

The Sling User Class includes: sling input materials, sling designs and design features, on a generic level, with the emphasis placed upon proper application and usage. Mechanical considerations and topics such as: sling angles and tension, center of gravity, load factors and wear protection are also explored in an interactive format. Environmental considerations such as: water, temperature, chemical exposure and ultraviolet light are also examined. Sling inspection systems, techniques and removal from service criteria are also presented in the sling user class.

Recommended class size: 12-75 Class duration: 4 hours or 8 hours

#### DESIGNATED INSPECTOR CLASS

The Designated Inspector Class provides detailed training in sling inspection techniques per ASME B30.9 and OSHA 1910.184. General information and sling damage, with a heavy emphasis upon cause-effect and recommendation are presented. In addition, sling inspection systems, techniques and removal from service criteria are covered. The Sling User Class is recommended as a prerequisite, but not required.

Recommended class size: 25

Class duration: 4 hours

#### FACILITY PROGRAM

The Facility Program takes participants from the classroom into the "real" world, as actual inspections are conducted. Sling storage locations and consumption patterns are analyzed, from the perspective of inventory management. The need for wear protection is also reinforced to maximize sling service life and overall safety. The Designated Inspector Class is a mandatory prerequisite for the Facility Program.

Recommended class size: 12

Class duration: 4 hours or 8 hours

#### ADVANCED RIGGING

Advanced Rigging features advanced weight calculations, center of gravity determinations, composite centers of gravity, load moment considerations and calculations, as well as, compound angles. The Sling User class is a mandatory prerequisite.

Recommended class size: 25

Class duration: 4 hours



#### LIFT-IT® MANUFACTURING COMPANY, INC.

4780 CORONA AVENUE · LOS ANGELES, CA 90058-3808 (323) 582-6076 • FAX (323) 587-1630 • E-mail: liftit@pacbell.net Visit our web site at www.lift-it.com

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#### **GUIDANCE ON SAFE SLING USE**

- Disclaimer
- Introduction
- Types of Slings:
- Alloy Steel Chain Slings
- Wire Rope Slings
- 3. Metal Mesh Slings
- Natural and Synthetic Fiber Rope Slings
- 5. Synthetic Web Slings
- 6. Synthetic Round Slings
- · Tables and Figures
- Sources of Information

#### INTRODUCTION:

#### What is the purpose of this guide?

The purpose of this guide is to assist employers and employees in the proper selection, use, and maintenance of slings and in the recognition of hazards associated with their use. This guide is designed to assist you in understanding and complying with OSHA's standards for sling use in General Industry, Maritime, and Construction.

You should also be aware that there are certain States (OSHA-approved State Plans) which operate their own programs under agreement with the U.S. Department of Labor, pursuant to section 18 of the OSH Act. These programs may differ in some details from the Federal OSHA program.

#### Why is this guide important?

From time to time almost all employees are involved in moving materials, structures or products; these activities often lead to injuries, which in many instances can be avoided by using safe materials handling practices. To avoid sprains, strains, muscle pulls or more severe injuries including death, whenever possible, ensure that mechanical means are used to move heavy, bulky objects.

Equipment such as powered industrial trucks, cranes, hoists, and derricks are used to aid in the movement of materials (especially large, bulky, or heavy loads). These types of equipment use slings to hold their suspended loads. This guide will offer information on the proper selection, use, and maintenance of slings.

#### Who should read this guide?

The handling of materials and finished products is key to the successful operation of many industries, which use, manufacture, construct, and sell materials, structures, or products. Anyone (including employers, employees, safety professionals, and engineers) responsible for handling of or moving materials and finished products from one location to another should read this guide. This guide can help you identify and manage the hazards associated with sling use.

#### What OSHA standards apply?

Although this guide discusses and makes recommendations on slings, there are legal requirements in OSHA standards that you must know about and comply with. The most important standard for you depends on the type of work you are doing. If you are working in general industry, ensure that your materials handling activities follow 29 CFR 1910.184 for sling use. In addition, you should consider looking at a related standard for overhead and gantry cranes, 29 CFR 1910.179. If you are working in shipyard employment, then 29 CFR 1915.112 is the standard to follow. If you are working in construction, 29 CFR 1926.251 is the standard to follow. Other standards include 29 CFR 1917.13, Slinging, for marine terminals and 29 CFR 1918.81, Slinging, for longshoring.

Consult these standards to ensure full compliance with their provisions.

In States with OSHA-approved State plans there are equivalent or stricter standards. Consult these standards to ensure full compliance with their provisions.

OSHA standards and documents are available online at www.osha.gov.

OSHA has not updated its sling standards since their initial promulgation. For some time now sling manufacturers have been manufacturing and marking slings in accordance with the specifications set forth in American Society of Mechanical Engineers (ASME) standard B30.9-2003, *Slings*, rather than with the specifications found in OSHA's existing sling standards. Because there is no indication that the newer ASME specifications have lessened employee safety, OSHA will continue to accept, under its policy for *de minimis* violations, the use of slings manufactured and marked in compliance with the ASME standard. *De minimis* violations require no correction and result in no penalty.

This guidance document is a combination of OSHA's sling standards, ASME's consensus standard, and other relevant information. However, this guidance document is not intended to imply or impose any additional regulatory requirements beyond the requirements in OSHA's standards. This guidance document does include information on synthetic round slings, which are not covered in OSHA's sling standards. In the absence of a specific OSHA standard, the General Duty Clause in section 5(a)(1) of the OSH Act requires employers to provide a workplace free from recognized hazards likely to cause death or serious physical harm to employees.

What type of hazards should I look for?

This guide will help employers and employees recognize hazardous conditions, such as:

- Improper sling or attachments for the type of load to be lifted and the environment in which it is being lifted;
- Worn slings and attachments or those with damage such as cracks, kinks, bends, cuts, gouges, and frayed fibers;
   and
- Improper storage of slings and misuses such as resting of loads on the sling or dragging of slings across abrasive floors.

This guide will also help employers and employees identify and avoid hazardous work practices, such as:

- Riding slings or walking under suspended loads; and
- Using improperly repaired or reconditioned slings and attachments or slings and attachments that must be removed from service.

Edwin G. Foulke, Jr. Assistant Secretary of Labor for Occupational Safety and Health

#### TYPES OF SLINGS:

This section describes several types of slings and provides specific information for their proper selection, use, and maintenance. This guidance document is not an attempt to explain OSHA's sling standard requirements. It is advisory in nature and informational in content and its recommendations on safe practices should help reduce and prevent injuries and fatalities related to improper sling use. It also discusses slings which are currently in use that are not covered in OSHA's standard.

There are several varieties of slings, including: alloy steel chain, wire rope, metal mesh, natural fiber rope, synthetic fiber rope, synthetic web, and synthetic round slings. Each type of sling has its advantages and disadvantages.

Many factors come into play when choosing the best sling for the task at hand. These include size, strength, flexibility, and weight, as well as suitability for the work environment, shapes of the load, and environmental conditions in which the sling will be used. Below are links to the six types of slings. Click on a link to view information on that type of sling.

- 1. Alloy Steel Chain Slings
- Wire Rope Slings
- 3. Metal Mesh Slings
- 4. Natural and Synthetic Fiber Rope Slings
- 5. Synthetic Web Slings
- 6. Synthetic Round Slings

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#### **GUIDANCE ON SAFE SLING USE**

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- Sources of Information
- ASME (B30.9, B30.10, B30.20 ) (http://www.asme.org)
- WRTB (Wire Rope Sling Users Manual) (http://www.domesticvirerope.org/wrtb/main\_prod.html)
- NIOSH Web page (http://www.cdc.gov/niosh/homepage.html)
- SELF INSPECTION CHECKLISTS (NIOSH)
  - 1) Slings General Requirements (http://www.cdc.gov/niosh/docs/2004-101/chklists/r1n59s~1.htm)
  - 2) Slings Steel Chain, Wire Rope, and Metal Mesh (http://www.cdc.gov/niosh/docs/2004-101/chklists/r1n60s~1.htm)
  - 3) Slings Natural Rope, Synthetic Rope, and Synthetic Web (http://www.cdc.gov/niosh/docs/2004-101/chklists/r1n61s~1.htm)
- OSHA Web page (http://www.osha.gov)
- [1] Qualified person: A person who, by possession of a recognized degree or certificate of professional standing in an applicable field, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.
- [2] This collection of information requirement in the standard has been approved under OMB control No. 1218-0223.
- [3] This statement is included for informational purposes only. Employers are not required to follow the ASME recordkeeping requirements.
- [4] Recognized limits on the number of broken wires include: 1: For strand-laid and single-part slings, 10 randomly distributed broken wires in one rope lay, or 5 broken wires in one strand in one rope lay. 2: For cable-laid slings, 20 broken wires per lay. 3: For six-part braided slings, 20 broken wires per braid. 4: For eight-part braided slings, 40 broken wires per braid.

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# Slings General Requirements

DHHS (NIOSH) Publication Number 2004-101

October 2003

Self-Inspection Checklist



#### Optional Information

Name of school:

Date of inspection:

Career-Technical program/course/room:

Signature of inspector:

#### Guidelines

This checklist covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standards 29 CFR 1910.184 and the construction standard 29 CFR 1926.251. It applies to slings used with other equipment to move material by lifting or hoisting. Slings might be used to wrap around engine blocks to lift them out of automobiles. The regulations cited apply only to private employers and their employees, unless adopted by a State agency and applied to other groups such as public employees. A yes answer to a question indicates that this portion of the inspection complies with the OSHA or U.S. Environmental Protection Agency (EPA) standard, or with a nonregulatory recommendation. Definitions of terms in bold type are provided at the end of the checklist.

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Questions marked with this symbol may require the help of an outside expert.

#### Safe Operating Practices

- 2. Are damaged or defective slings immediately taken out of service? [29 CFR 1910.184(c)(1); (d); (e)(3)(iii); and (e)(9) and 1926.251(a)(1)]
- 3. Are slings the original length without the use of knots, bolts, or other devices to shorten them? (i.e., have not been shortened by the use of knots, bolts, or any other device) [29 CFR 1910.184(c)(2) and 1926.251(c)(6)]
- 4. Are slings free of kinks? [29 CFR 1910.184(c)(3) and 1926.251(c)(7)]
- 5. Are sling loads always at or below the rated capacities? [29 CFR 1910.184(c)(4) and 1926.251(a)(2)]

Note: Consult the OSHA regulations or the manufacturer's requirements for permitted load ratings.

- 6. If a basket hitch is used, has the load been balanced to prevent slippage? [29 CFR 1910.184 (c)(5) and 1926.251(c)(8)]
- 7. Are slings always securely attached to their loads? [29 CFR 1910.184(c)(6)]
- 8. Are slings padded or protected from the sharp edges of their loads? [29 CFR 1910.184(c)(7) and 1926.251(c)(9)]
- 9. Are suspended loads kept clear of all obstructions? [29 CFR 1910.184(c)(8)]
- Are employees and students kept clear of loads to be lifted and suspended? [29 CFR 1910.184(c)(9)]
- 11. Have all employees and students been instructed not to place hands or fingers between the sling and the load while it is being tightened? [29 CFR 1910.184(c)(10) and 1926.251(c)(10)]
- 12. Is shock loading prohibited? [29 CFR 1910.184(c)(11) and 1926.251(c)(11)]
- 13. Have employees and students been instructed not to pull a sling from under a load when the load is resting on the sling? [29 CFR 1910.184(c)(12) and 1926.251(c)(12)]

Inspections

14. Are all slings, fasteners, and attachments inspected for damage or defects by a competent person each day before they are used? [29 CFR 1910.184(d) and 1926.251(a)(1)]

#### **Definitions**

Basket hitch: a sling assembly made by passing the sling under the load. It has both ends, end attachments, eyes, or handles on the hook or a single master link.

Shock loading: loading the sling suddenly.

Sling: an assembly that connects the load to the material handling equipment.

# CDC - NIOSH Publications and Products - Safety Checklist Program for S... Page 3 of 3

Page last reviewed: June 6, 2014
Page last updated: June 6, 2014

Content source: National Institute for Occupational Safety and Health (http://www.cdc.gov/NIOSH/) Education

and Information Division





# Slings Natural Rope, Synthetic Rope, and Synthetic Web

DHHS (NIOSH) Publication Number 2004-101

October 2003

Self-Inspection Checklist



#### Optional Information

Name of school:

Date of inspection:

Career-Technical program/course/room:

Signature of inspector:

#### Guidelines

This checklist covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standard 29 CFR 1910.184 and the construction standard 1926.251. It applies to slings used with other equipment to move material by lifting or hoisting. The regulations cited apply only to private employers and their employees, unless adopted by a State agency and applied to other groups such as public employees. A yes answer to a question indicates that this portion of the inspection complies with the OSHA or U.S. Environmental Protection Agency (EPA) standard, or with a nonregulatory recommendation. Definitions of terms in bold type are provided at the end of the checklist.

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Questions marked with this symbol may require the help of an outside expert.

Numerous tables in 29 CFR 1910.184 and 1926.251 give sling configuration, sling construction, sling diameter, and maximum load capacity. These tables have not be included as part of this checklist. For additional information, consult the OSHA regulations.

#### Natural and Synthetic Fiber Rope Slings

2. Are fiber rope slings that are made from conventional three-strand construction fiber rope used only within their rated capacities and minimum diameter of curvature? [29 CFR 1910.184 (h)(1)(i) and 1926.251(d)(1)]

Note: Consult the tables in the OSHA regulations or the manufacturer's requirements for permitted load ratings and diameter of curvature restrictions for the different rigging situations. Diameter of curvature is important since wrapping a sling around something at a diameter less than that recommended reduces the strength of the sling at the bend and could cause failure of the line.

- 3. Are natural and synthetic fiber rope slings used only within a temperature range of !20°F to 180°F? [29 CFR 1910.184(h)(2) and 1926.251(d)(3)]
- 4. If natural and synthetic fiber rope slings are used outside the temperature range of !20°F to 180°F or have been wetted or frozen, are the manufacturer's recommendations followed for continued use? [29 CFR 1910.184(h)(2) and 1926.251(d)(3)]
- 5. 

  Is the use of spliced fiber rope

Note: Consult the OSHA regulations under 29 CFR 1910.184(h)(3) and 1926.251(d)(2) and (4) for additional requirements on splices.

- 6. Do fiber rope slings have a minimum clear length of rope between eye splices equal to 10 times the rope diameter? [29 CFR 1910.184(h)(3)(iv) and 1926.251(d)(4)(iv)]
- 7. Is the use of knots in place of splicing prohibited for fiber rope slings? [29 CFR 1910.184(h)(3) (v) and 1926.251(d)(2)(v)]
- 8. Is the use of are fiber rope slings prohibited if the end attachments in contact with the rope have sharp edges or projections? [29 CFR 1910.184(h)(4) and 1926.251(d)(5)]
- 9. Are natural and synthetic fiber rope slings immediately removed from service if any of the following conditions are present? [29 CFR 1910.184(h)(5) and 1926.251(d)(6)]
  - 1. Abnormal wear
  - 2. Powdered fiber between strands
  - 3. Broken or cut fibers
  - 4. Variations in size or roundness of strands
  - 5. Discoloration or rotting
  - 6. Distortion of hardware in the slings

10. Are fiber rope slings only made from new rope; i.e., is the use of repaired or reconditioned fiber rope slings prohibited? [29 CFR 1910.184(h)(6)]

Synthetic Web Slings

- 11. Is each synthetic web slings marked or coated to show the rated capacity for each type of hitch and synthetic web material? [29 CFR 1910.184(i)(1) and 1926.251(e)(1)]
- 12. Is the synthetic webbing of uniform thickness and width? [29 CFR 1910.184(i)(2) and 1926.251(e)(3)]

Note: Selvage edges must not be split from the webbing's width.

- 13. Do fittings have a minimum breaking strength equal to that of the sling? [29 CFR 1910.184(i) (3) and 1926.251(e)(4)]
- 14. Are fittings free of all sharp edges that could damage the webbing? [29 CFR 1910.184(i)(3) and 1926.251(e)(4)]
- 15. Is stitching the only method used to attach end fittings to webbing and to form eyes? [29 CFR 1910.184(i)(4) and 1926.251(e)(5)]
- 16. Are synthetic web slings only used within their rated load capacity? [29 CFR 1910.184(i) (5) and 1926.251(e)(2)]

Note: Consult the tables in the OSHA regulations or the manufacturer's requirements for permitted load ratings for the different rigging situations.

- 17. When synthetic web slings are used, are the following precautions taken? [29 CFR 1910.184 (i)(6) and 1926.251(e)(6)]
  - 1. Nylon web slings are not used where fumes, vapors, sprays, mists, or liquids of acids or phenolics are present.
  - 2. Polyester and polypropylene web slings are not used where fumes, vapors sprays, mists, or liquids of caustics are present.
  - 3. Web slings with aluminum fittings are not used where fumes, vapors, sprays, mists, or liquids of caustics are present.
- 18. Is the use of synthetic web slings of polyester and nylon above 180°F prohibited? [29 CFR 1910.184(i)(7) and 1926.251(e)(7)]
- 19. Is the use of polypropylene web slings above 200°F prohibited? [29 CFR 1910.184(i)(7) and 1926.251(e)(7)]
- 20. Are synthetic web slings only repaired by the sling manufacturer or another competent person or organization? [29 CFR 1910.184(i)(8)(i)]

- 21. Is each repaired sling proof tested by the manufacturer (or another competent person or organization) to twice the rated capacity before its return to service? Is a certificate of proof test available? [29 CFR 1910.184(i)(8)(ii)]
- 22. Is the use of temporarily repaired slings (including webbing and fittings) prohibited? [29 CFR 1910.184(i)(8)(iii)]
- 23. Are synthetic web slings immediately removed from service if any of the following conditions are present? [29 CFR 1910.184(i)(9) and 1926.251(e)(8)]
  - 1. Acid or caustic burns
  - 2. Melting or charring of any part of the sling surface
  - 3. Snags, punctures, tears, or cuts
  - 4. Broken or worn stitches
  - 5. Distortion of fittings
- 24. Are shackles and hooks only used within their safe working loads? [1926.251(f)]

Note: Consult the OSHA regulations for the safe working loads of various sizes of shackles. Use the manufacturer's recommendations to determine the safe working loads for the various sizes and types of hooks. Test all hooks with no applicable manufacturer's recommendations at twice the intended safe working load before they are initially put into use. Maintain documentation of the dates and results of the test.

#### **Definitions**

Proof test: a nondestructive tension test performed by the sling manufacturer (or another competent person or organization) to verify construction and workmanship of a sling.

Sling: an assembly that connects the load to the material handling equipment.

Page last reviewed: June 6, 2014 Page last updated: June 6, 2014

Content source: National Institute for Occupational Safety and Health (http://www.cdc.gov/NIOSH/) Education

and Information Division

AN AMERICAN NATIONAL STANDARD

SAFETY STANDARD FOR CABLEWAYS, CRANES, DERRICKS, HOISTS, HOOKS, JACKS, AND SLINGS

# **SLINGS**

**ASME B30.9-1990** 

(REVISION OF ANSI/ASME B30.9-1984)



The American Society of Mechanical Engineers

345 East 47th Street, New York, N.Y. 10017 -

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**ASME B30.9-1990** 

(REVISION OF ANSI/ASME B30.9-1984)

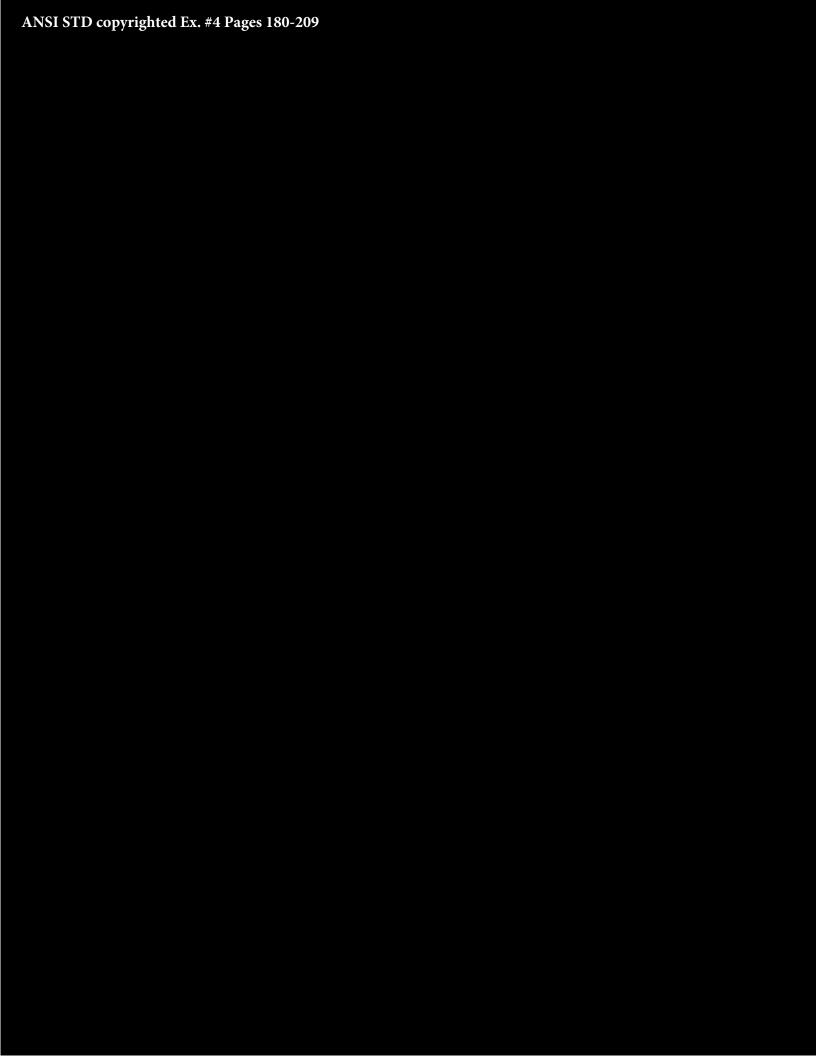
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## AMERICAN NATIONAL STANDARD

SAFETY STANDARDS FOR CABLEWAYS, CRANES, DERRICKS, HOISTS, HOOKS, JACKS, AND SLINGS

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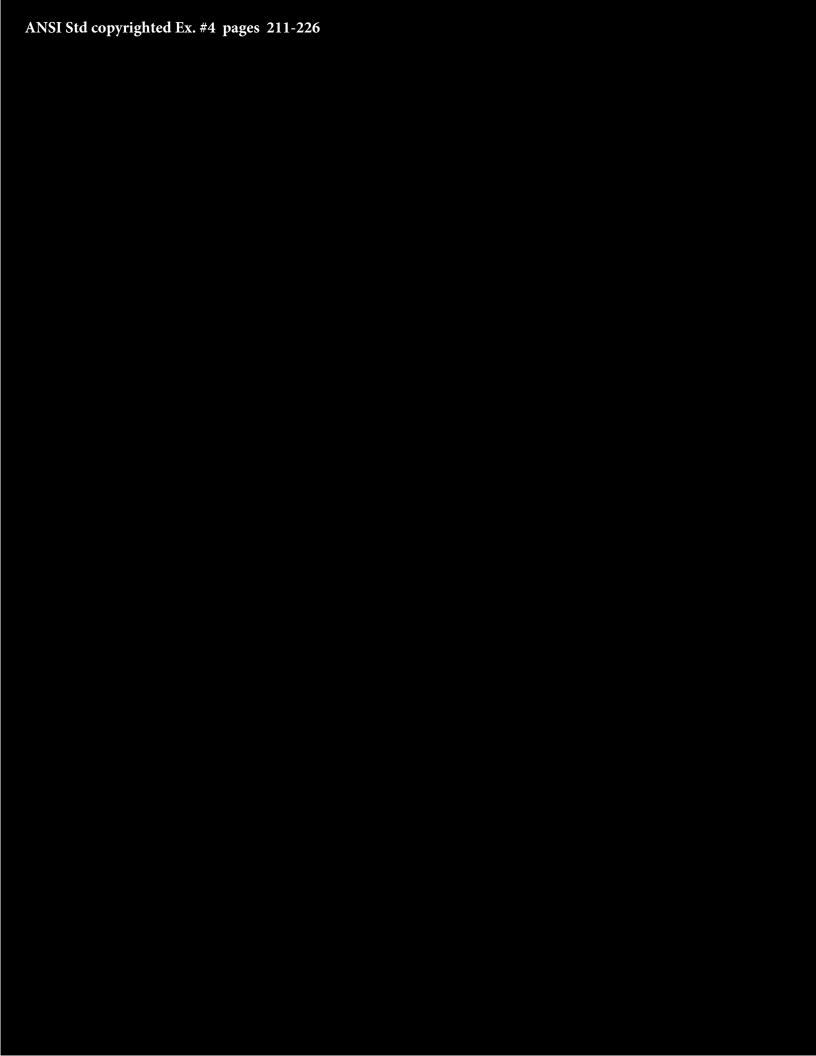
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Checklist				
Officialist	For each apparent violation	on:	Bring abatemen	it information and other information with
	- Nature of the violation		you to the inform	nal conference
	<ul> <li>Abatement measures</li> <li>Possible abatement dat</li> </ul>	20	If you do not co	ntest or schedule an informal conference,
	- OSSIBIC ADALEMENT GAL			become a final order
		ified mail and included OSHA		
	Pamphlet 3000. Give En Responsibilities Following			rohibits employers from discriminating or employee who has exercised their right
	/ Responsibilities Following	g all Colin Inspection.		o file an OSHA compliant.
		at or near the place where		
	each violation occurred.			nsultation is available to the employer
	The citation must be post	ed until the violation is	/	The dollars and the same and th
	corrected or for a minimu	m of 3 working days.	Union Rights	
	Abatement plans must al	so be posted near where the		contests the citations, the employees o elect "party status" before the review
	violation occurred.	so be posted field where the		he employees must be notified by the
	6 -			otice of contest is filed or a petition for
	receive citations:	f action you can take if you		abatement is filed. The union has a right
	Neterical Control of the Control of	station and penalty, you must		st be in writing within 15 days of receipt of
		according to the abatement	the citations.	
	date and pay any p	enalties	Petition for Mod	dification of Abatement (PMA) If unable
		an informal conference within 15	to meet an aba	tement date, the petition must be
		e citations with the area director		oon as possible, but no later than 1
	to discuss the follow a. Better explanation			ter the abatement date. Provide reasons time is needed (scheduling, back order,
		on of the standard that applies		is, etc). OSHA may conduct a monitoring
	c. Discuss abatem		inspection to en	nsure adequate progress has been made
	d. Discuss abatem	ent dates	Provide SBRE	FA Letter
	3. If you do not agree	with the citation, penalty, or	7	
		u have 15 days to file a letter of	1 *	
Information	contest with the are Regulatory Publications & F		lications	Construction Publications
Given	29 CFR Parts 1900 to 191	0.999 Control of Hazardo	us Energy (3120)	☐ Construction Industry Digest (2202)
	29 CFR Parts 1910.1000 t		onfined Spaces	Scaffold Use in the Construction
	29 CFR Part 1926 OSHA 300 Injury & Illness	(3138) Form Personal Protective	e Equipment (3151)	Industry (3150)  Excavations (2226)
	E com, coo many a micoo	☐ Hearing Conservat	ion (3074)	Lead in Construction (3142)
		Respiratory Protect		
		Sling Safety (3072 Safeguarding Equi	pment & Protecting	
		Workers from Am		
Citation Items				
Covered	Falls			
	Ladders			
	Excavation ?			
	( .			
	☐ Items covered loca' n b	pack side,		

Employee Interview; Ex. 7c

### U.S. Department of Labor Occupational Safety and Health Administration



INTERVIEW STATEMENT

### 3 pages of employee interview; Ex. 7C CSHO ID; Ex. 7c

#### United States of America

DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION



#### Witness Statement

I understand that to the extent permissible by law, my identity as the provider of this statement will be held in confidence. If I am called to testify in a court proceeding, my identity as the statement giver will be disclosed in accordance with applicable court rules. The content of this statement and my identity may be disclosed to other federal law enforcement agencies in accordance with Department of Labor rules and procedures. This statement may be subject to disclosure in accordance with applicable statute(s) and agency policy.

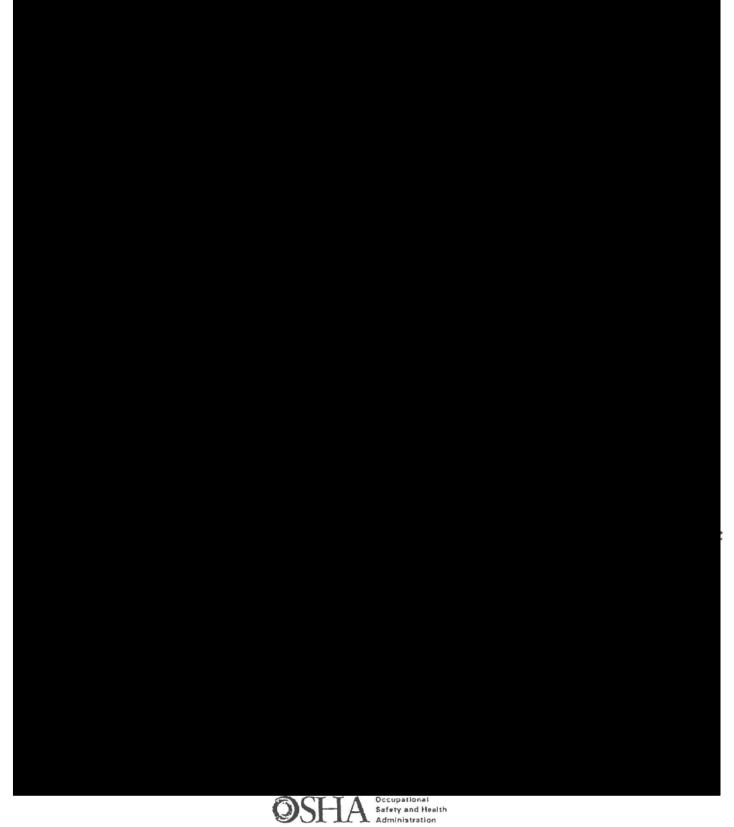


Signature

Taken By









	2 1100
Signature	Taken By
Signature	raken By

Date: \_\_\_\_\_ Page\_\_of\_\_



#### United States of America

### DEPARTMENT OF LABOR OCCUPATIONAL SALETY AND HEALTH ADMINISTRATION



#### Witness Statement

I understand that to the extent permissible by law, my identity as the provider of this statement will be held in confidence. If I am called to testify in a court proceeding, my identity as the statement giver will be disclosed in accordance with applicable court rules. The content of this statement and my identity may be disclosed to other federal law enforcement agencies in accordance with Department of Labor rules and procedures. This statement may be subject to disclosure in accordance with applicable statute(s) and agency policy.

Name:	Address:	NAME OF THE PROPERTY OF THE PR
Telephone:		
I hereby depose and say:		
1		
-		
4		
6		
7		
()		
10		
		,
14		
15		
t have read and had the opportuni	ty to correct this statement and these fa ic Law 91-596, Paragraph 17(g) makes	
Signature		Taken By



#### 2 pages of employee interview; ex. 7C

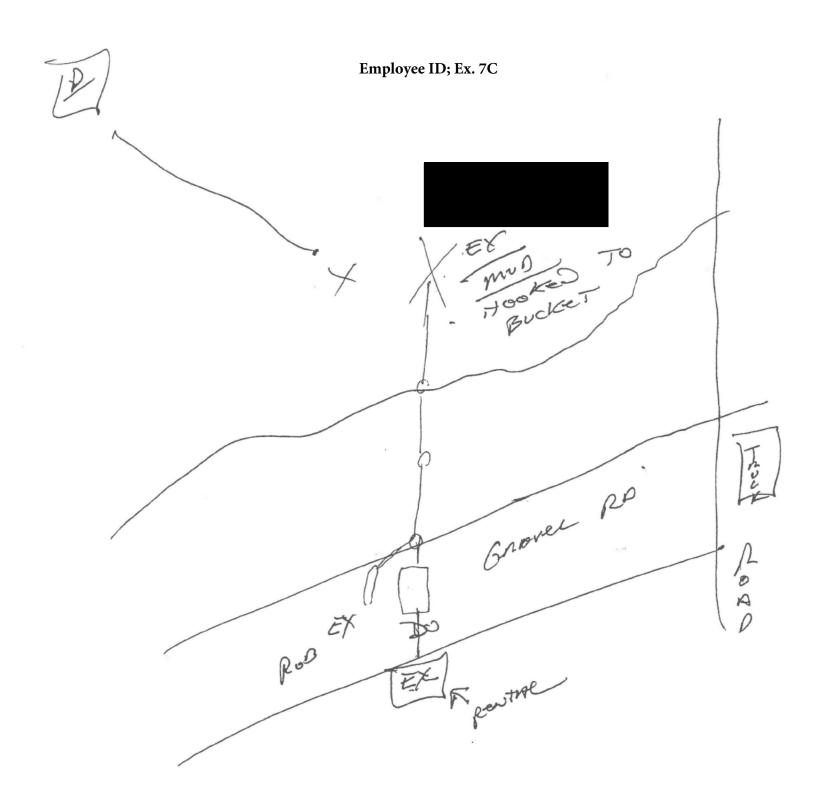
#### U.S. Department of Labor Occupational Safety and Health Administration





Date: 5-25-16	Time: \.oc Pm

Page 2 of 2



#### Employee Interview Sneet

Today's Date:		Time:		
Name: Nombre:		Employer: <i>Empleador.</i>		
Home Address:  Domicilio:			*	
City:	State: Estado:	A STATE OF THE PARTY OF THE PAR	Phone Number:  Número de teléfono:	
WorkTrade: Trabajo Comercio:		Job Position: Puesto de trabajo:		
Years' Experience:  De experiencia años:		•	company? esta empresa?	
	yes, what unio o caso afirmativ		Local #:	
What time did you start work A qué hora de empezar a tra			ere you working on? trabajando?	
What safety training	have you had?	Que tipo de entrenan	iiento de seguridad has tenido?	
2. Who gave you the sa	fety training?	Quién te trenio?		
3. When did you get the	e safety training	g? Cuándo resibiste la	s instruciones?	
4. What work are you d	oing today? C	Qué trabajo están hacie	ndo hoy?	
,		ha asignado ese trabaj	0?	
NOTES:				
		,	40.00	
confianza. Si soy llamado a decla acuerdo con las normas procesa policiales federales, de acuerdo divulgación, de acuerdo con la la He leído y tenido la oportunidad	arar en un proce des aplicables. El con reglas del D egislación aplical d de corregir esta blica 91-596, el	dimiento judicial, mi iden I contenido de esta declar epartamento de Trabajo y ble (s) y política de la ager a declaración y los hechos	veedor de esta declaración se llevará a cabo en cidad como el dador declaración será revelada ación y mi identidad puede ser revelada a otras y procedimientos. Esta declaración puede ser o acia. son verdaderos y correctos a lo mejor de mi e en un delito de hacer una declaración falsa a s	de s agencias bjeto de
Signature <i>Firma</i>			P2332 aken By	

#### United States of America

DEPARTMENT OF LABOR
OCCUPATIONAL SALETY AND HEALTH ADMINISTRATION



#### Witness Statement

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Date: 5-25-16

Page\_of\_



## Opening Conference Sign-in

Facility/Project:

M: umi FORT

Date: 5-18-16

Name	Title	Company	Phone	Union/Local	Steward Y/N
X KeHh CARR	OSPS MGR	Headwaters.	931-825 045		
+ ALAN FALES	AREA DRECTO	N HEADWATERS.	248-705-1468	16/A	
CHRIS OSTERBRINK	MANAGING DIRECT	OR DYNEGY-MIAMITORT	613-312-4500	N/A	NA
Phil Williamson	PAINT. NGR	Dipages - Misse Fax.	513-467-5873	NU	Die
Josh Michen	Safely/18n	HERAWAters	801-949-4409	NA	
				~	
		7			

#### Construction Industry Employer & Job Site Information

Company Information Complete Legal Company Name: HEAOWATERS PLANT SERVICES JNC. Office Address: 10701 5: RIVER FROM SUM City SOUTH VORDOR tate WT Zip 84095 Partnership \_\_\_\_\_ Sole Proprietorship \_\_\_\_ Legal Entity: Corporation Controlling Corporation (if applicable): HEADWATERS INC. NA Previous Company Name (if applicable): ex. #4 Tax ID # / Employer Identification: No. employees employed in the entire company: 2400 No. employees onsite: Has the Company been inspected by OSHA in the last three years? Yes \_\_\_\_\_ No \_\_\_\_ Not Sure X Site Information Name of Site: DYNERY Winni FOR Site Address 11/21 Brower RD City North pand State off Zip 45052 Type of Work being conducted on site: Power Generation / Land Free munterence General Contractor Contract Manager Sub-Contractor Y Prime Contractor Date Started 5-15-16 Finish X 2 weeks % Complete Electrical: Permanent Temporary Building Permit: Residential Commercial Foreman on site: Ason Tolly Person in charge of safety on site: Union: No Yes Union Name Local# Health & Safety Programs Jobsite Safety Meetings Written Safety Program No Jobsite Safety Inspections OSHA Poster on Site Yes No First Aid Kits Hazard Communication No Lockout Tagout Yes No Emergency Numbers Posted No Yes No Plan for Fire Distance to Emergency Care:

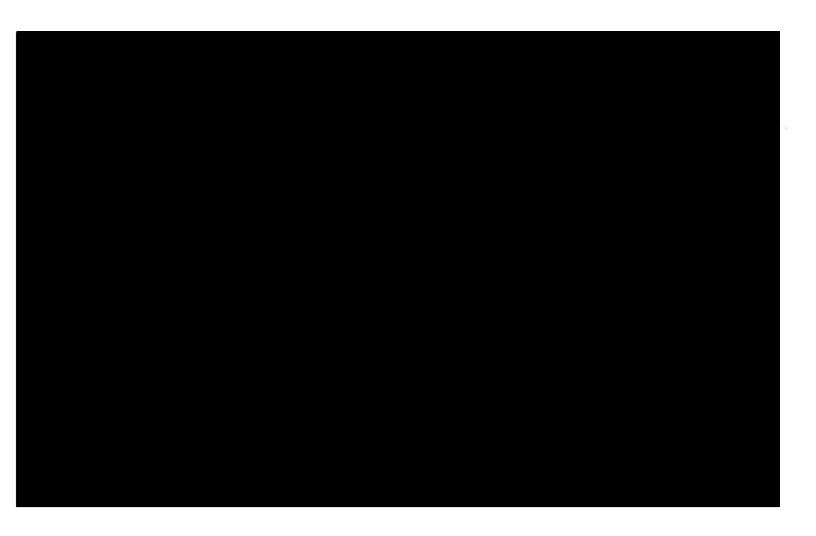
CONTRACT AGGREGATE WI SCOPE OF WORLE.

DYNERY INC. 11021 Brower R. North Bend, & 4 45052 AULD 911:52 713 507-6400 Horston, 1x 11:29 pm John Miller - 10mm on 5:4. 801-949-4409 U.P. Statedy & operation HEAD WATERS Plant SERVICES The Dynegy Tracility In Xbati Band OH Vic: JASON DOLLY 6 pm Open. Pull Doren pulling EXCANATOR DEVICE Broke Boo lows & Hit EE. - Working in Fly Ash Pit. looks like Mian, Force

	MAY 18, 2016 Arrived on-site 9:25 Security office CApis Osterbrink - Monnagas Director
Dynes	both WALDOVFF Engineer (numeronement engley)
	Employees ID: Ex. 7C
HPS	
5/25	Schedule Fortwiers X3 STANT HIME 10:30 Am.
	Hamilton Coursy Sherit Dept Min F.D. CHIEF OBERMAN
- And Wer	ccioant Huppones thound 7:45 pm art & nom / stronged because Equiphment S Stuck.
- SC B - K	spe of work / Cleroning out die Fry 18sh own I the Constill Chimney when the spek-1400 got Stuck om ATSV PC 350 BACK HOC/IN the Ditch
	vosby 11/2 WCL 98" 45 S5C
C	X21 Nylon 4" 16"

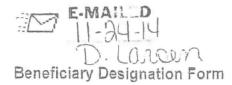
JASON JOLLY NEXT OF KIN





Next of Kin info; Ex. 7C





LifeMap Assurance Company<sup>TV</sup>
P.O. Box 1271, MS E-3A
Portland, OR 97207-1271
(503) 721-7161 • (800) 794-5390

For residents of Oregon and Washington, the definition of a Spouse includes your legal husband or wife or your State Certified/Registered Domestic Partner. Please contact your employer for any additional eligibility requirements.

For residents of Idaho, Utah, Montana and Wyoming, the definition of a Spouse includes your legal husband or wife. Please contact your employer for any additional eligiblity requirements.



Two employees were attempting to remove a KOMATSO PC 350 Hydraulic Excavator that was submerged deep inside the muddy ground of a landfill.

Employee # 1 was operating a KOMATSO dozer model D65EX-15EO using three separate 16' X 4" Nylon straps attached to 1 1/2 17T Crosby shackles that was attached to the shackle on the excavator. One of the nylon straps broke free from the shackle attached to the excavator causing a shackle to fly into the back window of the dozer cab striking the employee # 1 seat and causing blunt force trauma to his torso.



# U.S. Department of Labor



intranet.osha.gov

Labornet RegionNet Search:

on Intranet **G**  Advanced Search

#### Establishment Search Results - Headwater Plant Services Inc.

Details for the inspections listed below may be obtained in two ways. The first method is simply following the inspection activity number link. The second method is marking the check boxes for selected inspections and pressing the Get Detail button. Information relevent to the selected cases will be returned and may then be browsed or printed. For information on the data elements displayed below, see definitions.

Please note that inspections which are known to be incomplete will have the identifying Activity Nr shown in italic. Information for these open cases is especially dynamic, e.g., violations may be added or deleted.

Public Internet Detail -- Check this box to obtain level of Inspection detail available to non-OSHA users. Then check individual inspection boxes and click Get Detail.

Search Options							
Establishment	Date Range	RID	State	Limits	Include	Exclude	
Headwater Plant Services Inc.	1972-07-01 2016-05-18	All	All	100/2500			

Get Detail	+ All R	eset	Found 1 Processed 1 Selected 1 Displayed 1					yed 1		
Activity	Opened	RID	St	Туре	Sc	SIC	NAICS	Vio	Establishment Name	
315590166	09/19/2012	0452110	KY	Complaint	Part	4953	562212		Headwater Plant Services, Inc.	N020 000062750

(A)Back to Top

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Occupational Safety & Health Administration 200 Constitution Avenue, NW Washington, DC 20210



## U.S. Department of Labor



intranet.osha.gov

Labornet RegionNet Search:

on Intranet 0 Advanced Search

#### Establishment Search Inspection Detail -- OSHA View

Inspection: 315590166 - Headwater Plant Services, Inc.

Office: Kentucky

Nr: 315590166 Report ID: 0452110 Open: 09/19/2012

Headwater Plant Services, Inc.

3526 Tuckahoe Road

Maysville, KY 41056

SIC: 4953/Refuse Systems

NAICS: 562212/Solid Waste Landfill

Inspection Type: Complaint

Scope: Partial

Ownership: Private Safety/Health: Safety

Planning Guide: Safety-Manufacturing

Opt Report Nr: 028-12

Employees Covered: 31

Nr Employees: 31

Nr Controlled: 31

Advance Notice: N

Union Status: NonUnion

Hours Spent: 40.0

Close Conference: 10/11/2012

Close Case: 10/11/2012

Related Activity: Type ID

Date

Safety Health

Complaint 208769448 09/07/2012 Yes

## KENTUCKY LABOR CAB NET Occupational Safety and Health Program

### PRIOR OSHA INSPECTION



## Notice of Alleged Safety or Health Hazards Thu Sep 13, 2012 12:59pm

and the second		Complaint Number	208769448	
Can b	e obtained from			
	icky OSHA			